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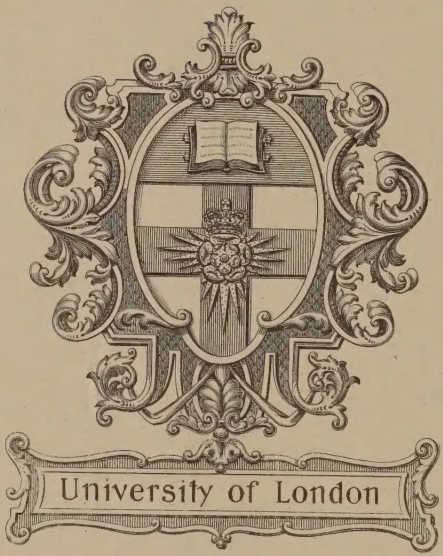

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THIRTY-SIX VOLUMES.

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MEDICAL DEPARTMENT; MEDICAL STATISTICS.

Session

5 *February* —— 6 *August* 1861.

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ARMY MEDICAL DEPARTMENT.

STATISTICAL,

SANITARY, AND MEDICAL

REPORTS

FOR THE YEAR

1859.

Presented to both Houses of Parliament by Command of Her Majesty.

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1861.

TO THE RIGHT HONOURABLE

THE SECRETARY OF STATE FOR WAR.

My Lord,

In accordance with the instructions laid down for the conduct of business by the Director-General and Heads of Branches of the Army Medical Department, I have the honour to submit the accompanying Reports on the Health of the Army in 1859, and on various matters connected with the duties of the Officers of the Department.

Circumstances have unavoidably delayed the completion of the Volume longer than I had anticipated; but I trust that in future the Annual Report will be ready at an earlier period.

I have the honour to be,

My Lord,

Your Lordship's most obedient humble servant,

J. B. GIBSON,

Director-General.

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STATISTICAL REPORT

ON THE

HEALTH OF THE ARMY IN 1859.

BY

T. GRAHAM BALFOUR, M.D., F.R.S.,

DEPUTY INSPECTOR-GENERAL OF HOSPITALS, AND

HEAD OF THE STATISTICAL BRANCH.

TO THE DIRECTOR-GENERAL

OF THE

ARMY MEDICAL DEPARTMENT.

SIR,

IN submitting the first Annual Statistical Report on the Health of the Army, it may not be out of place to notice some of the circumstances which have delayed its preparation, and rendered it less complete than will, I trust, be the case in future.

1. Among the important changes made in the forms of Returns, an alteration in the date to which they are made up involved the necessity of compiling the Abstracts from two series of documents instead of one, and also greatly increased the labour of checking the mortality by the War Office Returns. This will not affect subsequent Reports, and the difficulty hitherto experienced in ascertaining that none of the deaths have been omitted, will be obviated by the Nominal Return to be furnished in future by officers commanding regiments.

2. The adoption of a Classification of diseases differing from that used in former reports has also caused delay in every instance when a comparison had to be made between the results of 1859 and previous periods.

3. The time and labour required for organizing the Statistical Branch of the Department, introducing the new Forms of Returns, and carrying out the recommendations of the Sanitary Commission, have also contributed materially to retard the preparation of the volume.

4. The imperfect state of some Returns, and the loss or absence of others, and also the change which was made during the year in the organization of the Artillery, have all had some influence in rendering the Report less complete than it will probably be in future years, particularly as regards the Force serving at Home. Measures have been taken to

obtain more complete Returns, which will, it is believed, prove successful in removing these defects; but in the meantime we have found it necessary to omit all notice of the sickness and mortality among the Officers, and the information respecting the causes and extent of invaliding is very meagre.

5. It will be observed that no information is given respecting the troops serving in India. The returns, particularly from the Bengal Presidency, had, during the pressure of work arising from the Mutiny, been allowed to fall into arrear; and as the Mutiny was not finally put down till early in 1859, it was considered better to reserve any notice of the health of the troops, for a detailed history of the medical events of that period, which it is hoped may be drawn up from the documents in this Office at no very distant date.

6. No pains have been spared to make the Report as complete as the nature of the documents would permit; but as it has been necessarily prepared from the old forms of Returns, there are several important questions connected with the health of the army, upon the consideration of which it has been found impossible to enter at present, from want of sufficient data. I have deemed it necessary to point out a few of the difficulties attending the preparation of the Report, chiefly to prevent its being supposed that the present is the utmost extent of the information to be deduced from the more complete system of Returns recently adopted in the Department.

I have the honour to be,

Sir,

Your most obedient humble servant,

T. Graham Balfour,
Deputy Inspector-General.

6, *Whitehall Yard,*
March 1861.

STATISTICAL REPORT FOR 1859.

I. On the Health of the Troops serving in the United Kingdom in 1859.

Section I.

Sickness and Mortality.

United Kingdom.

As it was shown in previous statistical reports that different rates of mortality prevailed in the Household Cavalry and Cavalry of the Line, the Infantry, and the Foot Guards, it seemed desirable, on the present occasion, to ascertain whether the same diversity continued to manifest itself. We have also been enabled, for the first time, to refer to the diseases affecting the Household Cavalry, and to include in our investigation the details relative to the health of the Ordnance Corps. As regards the latter, however, the inquiry must, be confined to that portion serving in Great Britain, owing to the loss of a packet of returns in transmission through the Post Office from Dublin to London. This is perhaps the less to be regretted, as, in consequence of the change of the organization of the Artillery in 1859, it would have been impossible to enter into the same details as in the other arms of the service. It is hoped that in future no such difficulty will be experienced.

In investigating the sickness and mortality of the troops of the Line, the Depôt Battalions have been kept separate from the regiments serving at home, as it was considered probable that, owing to the peculiarity of their constitution —the large proportion of recruits passing through them in the course of the year, and the number of men sent to them from the service companies with constitutions impaired by foreign service—a considerable difference might be found to exist both in the prevalent diseases and in the amount of mortality.

The following table shows the average strength, the admissions into hospital, and the deaths from all causes, both in and out of hospital, in the different arms of the

ted gdom.

service, from 1st January to 31st December, 1859, together with the results obtained for the ten years, 1837-46 :—

	Strength	Admitted into Hospital	Died	Ratio per 1,000		1837-46 Annual ratio per 1,000	
				Admissions	Deaths	Admissions	Deaths
Household Cavalry ..	1,213	653	10	538	8·24	..	11·09
Dragoon Guards and Dragoons	8,059	7,908	64	981	7·94	962	13·64
Royal Artillery	11,508	14,877	92	1,293	7·99	1189	13·92
Royal Engineers	1,243	1,579	9	1,270	7·24	..	..
Military Train	1,139	1,439	7	1,263	6·14	..	..
Foot Guards	5,939	4,701	54	791	9·09	862	20·43
Infantry Regiments ..	19,621	18,915	149	964	7·59	1044	17·89
Depôt Battalions	22,993	26,421	311	1,148	13·52	..	..

From this table it appears that the admissions into hospital have been under the former average in the Foot Guards and Infantry of the Line, but above it in the Cavalry and Artillery. It must be remembered, however, that the previous returns of the Artillery referred to Woolwich alone, while those of 1859 include the Artillery at all the stations in Great Britain.

As the rate of mortality increases with advancing age, it is essential to the accuracy of the comparison between the different classes of troops that the proportion of men serving at different periods of life should be taken into account. The necessary correction has accordingly been made in the following table, the numbers serving at each quinquennial period of life in the Dragoon Guards and Dragoons being taken as the standard, and for the purpose of comparison the mortality during the ten years, 1837-46, has been added :—

	1859	1837-46
Household Cavalry	4·27	10·39
Dragoon Guards and Dragoons..	7·94	12·08
Military Train	7·09	..
Foot Guards	8·59	18·72
Infantry Regiments	7·58	17·06
Depôt Battalions	12·26	..
Civil Population in healthy districts	7·23	..

Unfortunately there are no means of ascertaining the ages of the Royal Artillery and Engineers for the period under review, but they may be assumed as nearly approaching those of the Cavalry; and the returns of the ages of the men composing the Depôt Battalions must be accepted as merely an approximation, owing to the great changes which take

place in the composition of these bodies of troops in the course of the year. *United Kingdom.*

This table shows a remarkable and most satisfactory reduction in the amount of mortality in all classes of troops; indeed, except in the Depôt Battalions, it is little above that of the civil population in the healthiest districts of England. The Foot Guards, can scarcely be held as on an equality, in a sanitary point of view, with the inhabitants of such districts, being quartered chiefly in London, and with some of their barracks in the most densely peopled quarters; but even among them the mortality is lower than among the male population at the same ages throughout England and Wales. In the case of the Household Cavalry, the numbers are so limited that the proportion might be expected to fluctuate considerably; but in the others the marked decrease can hardly be deemed accidental. It cannot be attributed to the contingency of an unusually healthy season, for the mortality of the civil population, in 1859, did not differ materially from the average of former years. Nor has it arisen from a greater proportion of men being discharged as invalids, for, as will be hereafter shown, the number thus disposed of was, except in the Foot Guards, under the previous average. It may, perhaps, have been in some degree the effect of selection, as so much larger a proportion of the force than formerly consisted of men recently enlisted, and who may not have been exposed for a sufficient length of time to the deteriorating influences which affect a soldier to have materially suffered in health from them. It will therefore be interesting to observe, whether under improved sanitary conditions this diminished rate of mortality can be in future maintained.

This view of the influence of selection in reducing the mortality is to some extent borne out by the difference in that of first battalions as compared with second battalions. The latter, being all of recent formation, were composed to a great extent of newly raised men. The mortality in each, during the year 1859, was as follows:—

	1st Battalions and Single Batt. Regiments	2nd Battalions
Average strength	10,085	9,536
Deaths during the year	91	58
Rates of Deaths per 1,000 of strength	9·02	6·08

This might also account for the favourable results obtained with regard to the Military Train, which contained even a larger proportion of newly raised men than the second battalions of Line Regiments.

United Kingdom.

Before proceeding to make some observations on the relative prevalence of the different classes of diseases in the army, it may be necessary to remark, that the Secretary of State for War having directed that the classification of diseases used by the Registrar-General, for the returns of the civil population, should in future be adopted in the army, the various abstracts in the Appendix, and the tables throughout this Report, have been made up in accordance with these instructions. The following are the classes and orders in which diseases are grouped under this arrangement:—

I. Morbi Zymotici—Zymotic diseases.
Diseases that are either epidemic, endemic, or communicable; induced by some specific body, or by the want or by the bad quality of the food.

In this class are comprised the following orders:

1. Miasmatic diseases.
2. Enthetic diseases.
3. Dietic diseases.
4. Parasitic diseases.

II. Morbi cachectici—Constitutional diseases.
Sporadic diseases; affecting several organs in which new morbid products are often deposited; sometimes hereditary.

Order 1. Diathetic diseases.
2. Tubercular diseases.

III. Morbi monorganici—Local diseases.
Sporadic diseases, in which the functions of particular organs or systems are disturbed or obliterated, with or without inflammation; sometimes hereditary.

Order 1. Diseases of the nervous system.
2. „ „ circulatory system.
3. „ „ respiratory system.
4. „ „ digestive system.
5. „ „ urinary system.
6. „ „ reproductive system.
7. „ „ locomotive system.
8. „ „ integumentary system.

IV. Morbi metamorphici—Developmental diseases.
Special diseases, the incidental result of the formative, reproductive, and nutritive processes.

Order 1. Developmental diseases of children.
2. „ „ women.
3. „ „ old people.
4. Diseases of nutrition.

V. Morbi Thanatici—Violent diseases or deaths.
Diseases which are the evident and direct results of physical or chemical forces, acting either by the will of the sufferer, or other persons, or accidentally.

Order 1. Accident.
2. Battle.
3. Homicide.
4. Suicide.
5. Execution.
6. Corporal punishment.

The nomenclature employed is that drawn up by the Statistical Congress, held at Paris in 1855, under the auspices of the French Government.

The following table, compiled from Abstract No. I of Appendix, shows the admissions into hospital, and deaths by the different groups of diseases during the year 1859:—

	Household Cavalry.		Dragoon Guards and Dragoons.		Royal Artillery.*		Royal Engineers.*		Military Train.		Foot Guards.		Infantry Regiments.		Depôt Battalions.	
Strength	1,213		8,059		11,508		1,243		1,139		5,939		19,621		22,993	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Class I.																
1. Miasmatic diseases	149	..	1,259	8	2,611	9	401	..	196	1	850	6	3,299	22	5,673	38
2. Enthetic „	146	..	3,244	..	6,575	1	582	..	661	1	2,007	..	7,837	..	9,193	2
3. Dietic „	..	..	11	..	5	..	1	..	3	1	2	..	24	..	40	1
4. Parasitic „	4	..	105	..	120	..	4	..	53	..	100	..	533	..	1,446	..
Class II.																
1. Diathetic diseases	10	..	25	..	59	..	9	..	2	..	7	..	40	2	69	1
2. Tubercular „	9	4	94	27	224	42	25	5	11	1	92	28	249	50	366	116
Class III.																
Diseases of the—																
1. Nervous system	10	..	96	6	221	11	35	1	25	1	85	2	222	10	517	29
2. Circulatory „	5	1	35	6	141	5	4	1	15	1	13	4	137	13	246	27
3. Respiratory „	82	3	666	5	1,163	5	155	1	132	..	464	4	1,850	22	2,909	51
4. Digestive „	34	1	191	4	394	3	33	..	20	..	122	3	558	8	812	19
5. Urinary „	1	1	12	1	28	.	2	..	5	1	4	1	28	3	47	1
6. Reproductive „	1	..	23	..	24	.	2	..	..	..	8	..	20	..	33	..
7. Locomotive „	..	..	18	..	27	..	3	..	3	..	4	..	45	1	50	..
8. Integumentary „	92	..	1,298	2	1,899	2	198	..	182	..	583	1	2,512	..	2,991	3
Class IV.																
1. Diseases of Nutrition	3	..	3	..	81	..	17	..	..	..	8	..	49	..	22	..
Class V.																
1. Accidents	88	..	754	1	1,122	10	104	1	98	..	279	4	1,190	15	1,430	15
3. Homicide	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Suicide	..	..	1	4	1	4	..	..	..	..	..	..	1	3	..	8
6. Corporal punishment	..	..	40	..	82	..	..	..	21	..	10	1	107	..	160	..
Diseases not stated	19	..	33	..	100	..	4	..	12	..	63	..	214	..	417	..
Total	653	10	7,908	64	14,877	92	1,579	9	1,439	7	4,701	54	18,915	149	26,421	311

* In Great Britain only.

For the purpose of comparison these figures have been reduced to the proportion per 1,000 of the Strength, and the results of the 10 years, 1837-46, have been also arranged in the same order.

	Household Cavalry.				Cavalry of the Line.				Royal Artillery.				Royal Engineers.		Military Train.		Foot Guards.				Infantry Regiments.				Depôt Battalions.	
	1859.		1837-46.		1859.		1837-46.		1859.		1837-46.		1859.		1859.		1859.		1837-46.		1859.		1837-46.		1859.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted	Died.
Class I.																										
1. Miasmatic diseases	122·8	..		2·07	156·2	·99	208·4	1·88	226 9	·78	249·	1·56	322·6	..	172·1	·88	143 1	1·01	222·3	3·41	168·1	1·12	248 6	3·56	246·7	1·65
2. Enthetic „	120·4	..		..	402·5	..	206·1	·09	571·4	·09	392·	·04	468 2	..	580·3	·88	337·9	..	250 3	.02	399·4	..	277·5	·07	399·8	·09
3. Dietic „	..	..		..	1·4	..	·4	·02	·4	..	..	..	·8	..	2·7	·88	·3	..	·1	·02	1·2	..	·3	·04	1·7	·04
4. Parasitic „	3·3	..		..	13·	..	·2	..	10 4	..	·1	..	3·2	..	46·5	..	16·8	..	·1	..	27·2	..	·2	..	62·9	..
Class II.																										
1. Diathetic diseases	8·2	..		·09	3·1	..	3·4	·16	5·1	..	6·2	·04	7·2	..	1·8	..	1·2	..	2·3	·09	2·	·1	4·9	·15	3·	·04
2. Tubercular „	7·4	3·30		6 28	11·7	3·35	12·7	6·07	19·5	3·65	42·5	8·16	20·1	4·02	9·7	·88	15·5	4·71	27·8	12·53	12·7	2·55	17·7	8·14	15·9	5·05
Class III.																										
Diseases of the																										
1. Nervous system..	8·2	..		·58	11·9	·74	9·8	·84	19·2	96	25·2	1·3	28·2	·8	22·	·88	14·3	·34	8·2	·59	11·3	·51	9·2	·79	22·5	1·26
2. Circulatory „	4·1	·82		·74	4·3	·73	3·1	·59	12·2	·43	22·5	·39	3 2	·8	13·1	·88	2·2	·67	2·9	·62	7·	·66	2·2	·3	10·7	1·17
3. Respiratory „	67·6	2·47		·24	82·6	·63	143·7	1·71	101·1	·43	140·6	·26	124·7	·8	115·9	..	78·1	·67	137·1	1·62	94·3	1·12	158·9	2·33	126·5	2·22
4. Digestive „	28·	·82		·58	23·7	·51	40·8	·64	34·3	·26	31·3	·87	26·6	..	17·6	..	20·5	·51	24·6	·64	28·4	·41	38·9	1·05	35·3	·83
5. Urinary „	·8	·82		..	1·5	·12	1·2	·04	2·4	..	18·1	..	1·6	..	4·4	·88	·7	·17	··	·04	1·4	·15	2·	·06	2·1	·04
6. Reproductive „	·8	..		..	2·9	..	·7	..	2·1	..	3·7	..	1·6	..	..	..	1·4	..	1·1	..	1·	..	·7	·01	1·4	..
7. Locomotive „	..	..		..	2·2	..	·7	..	2·3	..	2·8	·04	2·4	..	2 6	..	·7	..	·4	·04	2·3	·05	·8	·01	2·2	..
8. Integumentary „	75·9	..	No data.	·09	161·1	·24	202·	·07	165·	·17	136·5	·13	159·3	..	159·8	..	98·2	·17	126·3	·19	128·1	..	217·6	·15	130·1	·13
Class IV.																										
4. Diseases of Nutrition	2·5	..		..	·4	..	·1	·04	7·1	..	14·1	..	13·7	..	..	..	1·3	..	·2	·02	2·5	..	·2	·01	1·	..
Class V.																										
1. Accidents..	72·6	..		·33	93·6	·12	124·7	·79	97·5	·87	100·	·83	83·7	·8	86·	..	47·	·67	58·3	·34	60·6	·77	58·3	·61	62·2	·65
3. Homicide	..	..		..	..	..	..	·02	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	·01	..	..
4. Suicide	..	..		..	..	·1	·51	..	·59	·1	·35	..	·13	..	..	..	..	..	·17	..	·24	·1	·15	..	·23	..	·35
5. Execution	..	..		..	..	..	..	..	..	..	..	·04	..	..	..	..	..	..	..	..	..	..	..	..	·01	..	..
6. Corporal punishment	..	..		..	4·9	..	3·3	..	7·1	..	4·6	..	..	..	18·4	..	1·7	..	1·	..	5·4	..	4·8	..	7·	..
Diseases not specified	15·7	..		·09	4·1	..	·4	·09	8·7	..	..	·13	3·2	..	10 5	..	10·6	..	·6	·02	11·	..	1·2	·36	18·1	..
TOTAL	538 3	8·23		11·09	981·2	7·91	961·7	13 64	1292·7	7·99	1189·2	13 92	1270·3	7·22	1263·4	6·16	791·5	9·09	862·4	20·43	964·	7·59	1044·	17·89	1149·1	13·52

These ratios show that the Household Cavalry enjoy a marked exemption from disease, as compared with the other troops, while the admissions in the Royal Artillery and Royal Engineers are higher than in the other branches of the service. But this excess may, perhaps, be attributable partly to the fact that only a portion of the Ordnance Corps, for reasons previously stated, is included in this report; and partly to the circumstance that all the invalids of the Artillery are sent to Woolwich instead of Chatham, and, being attached to one of the Brigades there, tend to swell the number of admissions, though their diseases are the result of foreign service. The deaths among these invalids have been carefully excluded from the tables. *United Kingdom.*

The Foot Guards have always shown a lower amount of admissions than either the Dragoon Guards and Dragoons, or Infantry, although the mortality is higher—a result which may perhaps be attributable to the larger proportion of married men among them, who are unwilling to go to hospital, unless seriously ill, on account of the stoppage made from their pay.

We shall now offer a few remarks on the different groups of diseases by which the admissions and deaths have been occasioned.

Miasmatic Diseases.

	Annual ratio per 1,000			
	1859		1837-46	
	Admitted	Died	Admitted	Died
Household Cavalry	122·8	..	..	2·07
Dragoon Guards and Dragoons	156·2	·99	208·4	1.88
Royal Artillery	226·9	·78	249·	1·56
Royal Engineers	322·6	..	..	..
Military Train	172·1	·88	..	..
Foot Guards	143·1	1·01	222·3	3·41
Infantry Regiments	168.1	1·12	248·6	3·56
Depôt Battalions	246·7	1·65	..	..

There has been a marked diminution both in the prevalence and mortality of miasmatic diseases. But to assist us in the inquiry as to the causes to which this may be attributable, it may be found advantageous still further to subdivide the diseases constituting this group. With this

United Kingdom.

view the more prevalent forms have been classed together in the following table:—

Annual ratio per 1,000		Household Cavalry.	Dragoon Guards and Dragoons.	Royal Artillery.	Royal Engineers.	Military Train.	Foot Guards.	Infantry.	Depot Battalions.
Eruptive Fevers	Admitted..	7·42	4·47	9·91	4·83	6·14	7·41	4·13	4·74
	Died.. ..	..	·5	·26	..	..	..	·2	·22
Paroxysmal Fevers*	Admitted..	..	1·61	23·37	28·96	..	3·2	2·96	15·13
	Died.. ..	..	..	..	..	..	..	..	..
Continued Fevers	Admitted..	14·01	27·8	25·98	53·1	28·1	32·16	29·05	43·45
	Died.. ..	..	·37	·35	..	·88	·84	·66	·96
Dysentery, Diarrhœa, and Cholera	Admitted..	33·8	23·33	21·55	30·57	17·56	33·	17·07	21·74
	Died.. ..	..	·12	..	..	..	..	..	·13
Sore throat and Influenza	Admitted..	27·21	26·55	47·18	59·53	29·85	22·9	35·47	46·67
	Died.. ..	..	..	..	..	..	..	..	·04
Ophthalmia..	Admitted..	4·12	16·5	21·2	14·48	26·4	12·93	27·06	35·36
	Died.. ..	..	..	..	..	..	..	..	..
Rheumatism	Admitted..	32·97	46·66	55·79	71·6	57·94	31·65	49·08	65.4
	Died.. ..	..	..	·09	..	..	..	..	·17

Eruptive Fevers have given rise to little sickness and mortality. The admissions by small-pox amounted to 175, and the deaths to 7. Of the latter, one occurred at Brighton, and one at Dublin, in the Cavalry; one at Woolwich in the Royal Artillery; one at Dublin, and one at the Curragh, in the Infantry; and one at Chatham, and one at Walmer, in the Depôt Battalions. Of 27 cases in the Cavalry, 17 occurred in the 11th Hussars at Brighton, in January and February. They are all stated to have borne marks of vaccination, and it may be inferred, from the low rate of mortality, that it proved an efficient safeguard.

Scarlatina did not prevail to any extent, except in the Scots Fusilier Guards which furnished 27 out of 30 admissions in the brigade. Of these 20 were in Dublin, 5 in London, and 2 at Croydon.

Paroxysmal Fevers have not given rise to much inefficiency, indeed scarcely to any, except in the Ordnance Corps and the Depôt Battalions. Their prevalence in these has probably been the result of previous foreign service, and, in the case of the Artillery, is perhaps due to part of the force being quartered at Sheerness, Tilbury Fort, and Purfleet, where the vicinity of the marshes would be likely to give rise to intermittent fever. The Arsenal and practice ground

* This group includes F. Intermittens, F. Remittens, and F. Icterodes.

in the marshes at Woolwich, may also have materially tended to increase the number of admissions by this type of disease. *United Kingdom.*

Continued Fevers have prevailed to nearly the same extent in all arms of the service, with the exception of the Household Cavalry, which has enjoyed a marked exemption, and the Royal Engineers and Depôt Battalions, in which they have considerably exceeded the average. There is some reason to fear that the excess in these corps is not quite unconnected with habits of intemperance. As compared with the results for the period 1837-46, there is a very marked reduction, both in the admissions and deaths by continued fevers, as will be seen by the following comparative statement:—

	Annual ratio per 1,000.			
	1859.		1837-46.	
	Admitted.	Died.	Admitted.	Died.
Dragoon Guards and Dragoons	27·8	·37	51·9	1·36
Royal Artillery	26·	·35	51·	·65
Foot Guards	32·2	·84	77·7	2·44
Infantry Regiments	29·	·66	69·9	2·45

In the case of the Foot Guards there is satisfactory evidence that much of this reduction is due to the adoption of sanitary measures to improve their quarters in the Tower of London.* The same conclusive evidence cannot be adduced with regard to the Cavalry and Line Regiments, but there is good reason to believe that the improvement in them is at least partly attributable to measures of a similar character.

Dysentery, Diarrhœa, &c., have been rather more prevalent in the Household Cavalry, the Royal Engineers, and the Foot Guards, than among the other troops. But as compared with the previous average there has been a considerable reduction among the Guards, probably attributable to the same cause as that of the fevers, as formerly the men quartered in the Tower of London almost invariably suffered from diarrhœa to a great extent. The draining of the ditch, and the supply of good drinking water, were very likely to effect such an amelioration.

* See No. LXI. p. 491 of Appendix to the Report of the Commissioners appointed to inquire into the Regulations affecting the Sanitary Condition of the Army, presented to Parliament, 1858.

United Kingdom.

Sore throat appears to have been more prevalent in the Ordnance, the Infantry Regiments, and the Depôt Battalions.

Ophthalmia has been very prevalent in the Military Train, the Infantry Regiments, and the Depôt Battalions, while the Household Cavalry have enjoyed almost an immunity from it. In no arm of the service, however, has it been so prevalent as it formerly was in the Infantry, when the ratio amounted to 48· per thousand. During the year 1859, it prevailed to a much greater extent in some corps than in others. Thus, the 76th Regiment furnished 60 admissions, and the 1st Battalion, 15th Regiment, 56, and it is stated by the surgeons of both these regiments, that ophthalmia had been very prevalent in them for a period of years. It is satisfactory, however, to find that even in these corps it appears to be gradually diminishing in frequency.

Rheumatism has not undergone such a reduction as might have been anticipated from the much greater number of young men in the service than during the previous period; indeed in the Infantry Regiments it is slightly in excess of the previous average—a result which is difficult to explain, but may, perhaps, to some extent, be the effect of the greater proportion of venereal among the men, as there can be no doubt that many of the cases of rheumatism occurring in the army are the sequel of that disease.

Enthetic Diseases, which comprise all the forms of venereal disease, have been the cause of much more inefficiency than any other class, in all arms of the service except the Household Cavalry, and show a marked increase in their prevalence compared with the previous average, as will be seen by the following statement:—

	Annual ratio per 1,000.	
	1859.	1837-46.
Household Cavalry	120·4	..
Dragoon Guards and Dragoons	402·5	206·1
Royal Artillery	571·4	392·0
Royal Engineers	468·2	..
Military Train	580·3	..
Foot Guards	337·9	250·3
Infantry Regiments	399·4	277·5
Depôt Battalions	399·8	..

Thus it appears that the increase of venereal has varied from one-fourth to half of the former average; except in the Household Cavalry, it has given rise to not much under one-half of the admissions into hospital, and, as the cause of so great an amount of inefficiency, deserves the serious consideration of the military autho-

rities. In 1859 there were 422 admissions into hospital on account of venereal among every 1,000 men serving in the United Kingdom. From data which will be available for publication in the next Annual Report, the duration of cases of this class has been found to average 23·22 days. Assuming the mean strength of troops in the United Kingdom to be 90,000, the inefficiency, arising from venereal alone, must therefore be equal to the loss of the services, for the whole year, of 2,417 men, or of nearly three regiments. Not only, however, is the subject important from the loss of the services of these men, but many of the diseases included in the class are likely to impair the constitution, and, although not an immediate cause of death, to give rise to pulmonary consumption and other fatal diseases, or disqualify the men permanently for military service. *United Kingdom.*

We are unable to assign any satisfactory reason for the much greater prevalence of this class of diseases among the men of the Ordnance Corps and Military Train than the other troops. It may, perhaps, arise from the large proportion of them quartered at Woolwich, which appears, by the returns of the former period, to have enjoyed an unenviable pre-eminence in this respect. We hope in a future report to be able to show conclusively the stations at which these diseases have been most frequent. The returns for 1859 do not furnish the information necessary for the careful examination of this point. It may, however, be stated, that at Aldershot the admissions appear to have slightly exceeded the average, having amounted to 433 per 1,000 of strength; among the troops quartered in Ireland, on the contrary, the ratio was considerably under the average, being only 357 per 1,000.

If the diseases of this class be subdivided into two groups, the first consisting of gonorrhœa, swelled testicle, and stricture of the urethra, and the second of primary and secondary syphilis, venereal sores and buboes, they will be found distributed in the following proportions:—

Annual ratio per 1,000 Admitted.	Household Cavalry.	Dragoon Guards and Dragoons.	Royal Artillery.	Royal Engineers.	Military Train.	Foot Guards.	Infantry Regiments.	Depot Battalions.
Gonorrhœal	45	142	219	226	138	84	152	201
Syphilitic	75	260	352	242	442	254	247	199

nited ingdom.

The diseases comprised in the syphilitic group are more likely to affect the general health and impair the constitution, than those in the gonorrhœal. When, therefore, the admissions by it are found to equal in number one-fourth of the whole force, it surely becomes a question of grave importance by what means these diseases can be diminished.

Dietic Diseases have given rise to very little inefficieny. The two deaths recorded, one in the Military Train, and the other in the 19th Depôt Battalion, at Fermoy, were the result of drinking a quantity of ardent spirits.

Parasitic Diseases were most prevalent in the Military Train and Depôt Battalions, owing to the number of recruits who joined in the course of the year, many of whom were affected with itch.

Diathetic Diseases do not appear to require any special remark.

Tubercular Diseases have been the cause of more deaths than any other class; but even with regard to them, there is reason for congratulation in the reduced ratio compared with former periods. This is most marked in the Foot Guards and Infantry Regiments, though, even in the Household Cavalry, and Dragoon Guards and Dragoons, the loss by them is very little over half the former average. If the diminished mortality in the army be, as already suggested, in some degree attributable to the influence of selection and of the large proportion of young soldiers in the ranks, it is in this class of diseases that its effects would be most strongly marked. The very small number of deaths by these diseases in the Military Train, appears to support this opinion, which is still further corroborated by the difference in the mortality by them in 1st battalions and single battalion regiments compared with the recently raised 2nd battalions. In the former, the deaths by tubercular diseases, have been in the ratio of 3·27 per 1,000 of the strength; while in the latter, they have only amounted to 1·78 per 1,000.

Of the orders comprised in the class of Local Diseases, those of the

Nervous System have exceeded the previous average, except in the Royal Artillery, in which corps, however, they are still more prevalent than either in the Guards or the Line.

Delirium Tremens, which has been included in this order, has furnished the following proportions of admissions in the different arms:—

Household Cavalry	4·94 per 1,000.	*United Kingdom.*
Dragoon Guards and Dragoons..	1 98 „	
Royal Artillery..	2·60 „	
Royal Engineers	5·63 „	
Foot Guards	·34 „	
Infantry Regiments	1·63 „	
Depôt Battalions	4·35 „	

From this it appears that the Foot Guards continue to enjoy the exemption from this disease which was pointed out in a former Report, and attributed rather to their ordinary drink being beer than to any remarkable habits of temperance. The Household Cavalry, Royal Engineers, and Depôt Battalions, on the other hand, considerably exceed the average. The numbers of the former are too small to warrant any decided conclusion from the returns of one year, and the high ratio in the Depôt Battalions may probably with justice be attributed to the number of old soldiers, who have, in the course of their colonial service, acquired habits of tippling, which even military discipline is insufficient to restrain.

Diseases of the Circulatory System have been the cause of 58 deaths, principally from disease of the heart and aneurism.

Diseases of the Respiratory System show a marked reduction in prevalence compared with the former average. In the Depot Battalions alone has the mortality been nearly equal to the average of the Infantry for the period 1837-46, and this has very probably arisen from the deaths of men sent home from the service companies in impaired health. Every care has been taken not to include invalids in the abstracts, but it has been impossible to separate men who, on their arrival in this country have been sent to do duty with the Depôt Companies, and who have subsequently died there of disease contracted abroad.

Diseases of the Digestive System have not been the source of much sickness or mortality; compared with the previous period, they have been slightly more prevalent in the Artillery, but not to such an extent as to require detailed notice.

The other orders of local diseases do not seem to call for observation, with the exception of those of the Integumentary System, which have prevailed to the extent of 136 per 1,000, the principal affections being boils, abscesses, and ulcers. The Household Cavalry and Foot Guards are the only troops among whom the admissions by these diseases were much under the average.

United Kingdom.

Accidents.—The admissions into hospital under this head, as might be anticipated, have been considerably lower in the Infantry Corps than in the Cavalry and Ordnance, but the mortality has been very similar in them all, except the Household Cavalry and Military Train, in which there have been no fatal accidents. As compared with the previous period, there has been very little difference in the admissions, except in the Cavalry, in which a considerable reduction has taken place. The most common cause of death has been drowning, by which 26 men lost their lives in 1859. Four were killed by railway accidents, of whom one was a Guardsman, two in Infantry Regiments, and one of a Depôt Battalion.

Suicide.—Twenty cases of suicide were reported in 1859, four in the Cavalry, four in the Artillery, one in the Foot Guards, three in Infantry Regiments, and eight in the Depôt Battalions. The mode in which the deed was committed is not stated in six instances. Of the others, one drowned himself, one hanged himself; eight made use of firearms, two of razors, and two of poison. The poisons used were, prussic acid by a corporal of the Rifle Brigade, and cyanide of potassium by a serjeant of Artillery, who had been in the habit of employing it in photography. It is possible that some of the men returned as "found drowned," may have destroyed themselves, but where there has been no evidence to that effect, their deaths have of course been entered as accidental. The results correspond closely with those formerly obtained, the cases of self-destruction being more numerous in proportion to the strength in the Dragoon Guards and Dragoons than in the Infantry and Foot Guards, while the Artillery and Depôt Battalions hold an intermediate place. The Household Cavalry and Engineers have returned no deaths under this head.

Corporal Punishment has not been inflicted in the Life Guards or Royal Engineers. In the former, it is rendered unnecessary by the facility with which the commanding officers are able to get rid of men whose conduct is bringing disgrace on the regiment. In the latter, perhaps the constant occupation and the higher pay of the men, may account for their exemption from crimes which would subject them to it. In the other arms of the service it has varied from 1·68, in the Foot Guards, to 18·43 in the Military Train. The high ratio in the latter probably arose from the circumstances under which the Corps was raised, immediately after the Crimean War. But in all there is an increase upon the

former average, as will be seen by the following comparison:— *United Kingdom.*

Annual ratio per 1,000 in—	Dragoon Guards and Dragoons.	Royal Artillery.	Military Train.	Foot Guards.	Infantry.	Depôt Battalions.
1859	4·96	7·13	18·43	1·68	5·45	6·95
1837–46	3·36	4·64	..	1·	4·80	..

In confirmation of the preceding remarks regarding the Household Cavalry, it may be stated that in 1859 six men were discharged for "bad conduct;" twelve, "the regiment having no further occasion for their services;" and two, "the regiment being over the establishment." Unfortunately a similar process of elimination cannot be applied to the other branches of the service.

Diseases not stated.—The admissions under this head were all recorded as "Observatio;" but the result of this observation was omitted to be stated. In consequence of the extent to which this term was employed, the necessary steps have been taken to suppress its use altogether, and it is hoped that in future the number of cases returned without the disease being specified will be reduced to a very small fraction.

Militia.

During the year 1859 there was a considerable force of the Embodied Militia employed throughout the United Kingdom; but as these regiments, in very many instances, have included in their medical returns only the deaths in hospital, and did not furnish to the War Office the annual nominal returns from which the deaths out of hospital could have been ascertained and the total mortality checked, it was deemed advisable to confine the remarks in the preceding pages to the troops composing the regular army. As it may be interesting, however, to compare the relative prevalence of the various classes of diseases in the Militia and Line, the following table is submitted, showing the admissions into hospital, and deaths among such of the

United Kingdom.

Militia Regiments as remained embodied throughout the whole of the year :—

MILITIA, 1859.—Strength, 19,048.

			Annual ratio per 1,000 of mean strength			
			Militia		Infantry Regiments	
	Admitted	Died	Admitted	Died	Admitted	Died
Class I.						
1. Miasmatic diseases ..	3,181	23	167·	1·21	168.1	1·12
2. Enthetic „ ..	7,271	2	381·7	·11	399·4	..
3. Dietic „ ..	13	..	·7	..	1·2	..
4. Parasitic „ ..	561	..	29·5	..	27·2	..
Class II.						
1. Diathetic diseases ..	58	1	3·	·05	2·	·10
2. Tubercular „ ..	136	27	7·1	1·41	12·7	2·55
Class III. Diseases of the—						
1. Nervous system ..	250	11	13·1	·58	11·3	·51
2. Circulatory „ ..	109	10	5·7	·53	7·	·66
3. Respiratory „ ..	1,934	18	101·5	·95	94·3	1·12
4. Digestive „ ..	496	7	26·	·37	28·4	·41
5. Urinary „ ..	10	4	·5	·22	1·4	·15
6. Reproductive „ ..	20	..	1·1	..	1·	..
7. Locomotive „ ..	15	1	·8	·05	2·3	·05
8. Integumentary „ ..	2,087	1	109·6	·05	128·1	..
Class IV.						
4. Diseases of Nutrition ..	..	..	..	..	2·5	..
Class V.						
1. Accidents	1,187	10	62·3	·53	60·6	·77
3. Homicide	..	1	..	·05	..	..
4. Suicide	..	3	..	·16	·1	·15
6. Corporal Punishment ..	13	..	·7	..	5·4	..
Class VI. Diseases not stated ..	142	..	7·5	..	11·	..
Total	17,483	119	917·8	6·27	964·	7·59

This table shows a striking similarity in the results for the two classes of troops. The only groups which seem to call for remark are the tubercular diseases and diseases of the integumentary system. The lower ratio of the former, in the Militia, may probably be the result of their shorter service, as, at the end of five years, if the regiment remain embodied so long, men of impaired health and constitution can be got rid of on the termination of the period for which they had engaged to serve. The Militia, also, have not been so long subject to the deteriorating influences by which the health of soldiers appears to be affected, and some

of the deaths by consumption having occurred on furlough may not have been included in the medical returns. *United Kingdom.*

Re-Vaccination.

In 1858, in consequence of a number of cases of small-pox having occurred in the army, particularly in India, among persons who had, to all appearance, been previously satisfactorily vaccinated, a departmental order was issued that in future every recruit should, on joining his regiment, be vaccinated, even if he should be found to have marks of small-pox or of previous vaccination, and a monthly return of the results be forwarded to the Director-General. Under these orders, also, a number of soldiers, in whom the marks of vaccination were not deemed satisfactory, were vaccinated, and the results were kept separate from those of the recruits. As the returns began to be furnished in October, 1858, we have included the results of the last three months of that year with those of 1859, with a view to render available all the information upon this very important subject. In Abstract No. IV of Appendix, will be found detailed the numbers of soldiers and recruits re-vaccinated, both in the regular troops serving at home, and in the Militia, with the results. The following table shows the degree of success which attended the operation in 1,000 cases in each of four different categories, together with the general result upon all the men vaccinated:—

Army exclusive of Militia.	Total Number Vaccinated.	Results.	In those who bore marks of previous Small-pox.	In those who bore good marks of previous Vaccination.	In those who bore doubtful marks of previous Vaccination.	In those who bore no marks of previous Vaccination or Small-pox.	Total.
Soldiers, not Recruits	4,403	A perfect vaccine pustule ..	414·50	423·50	294·12	488·96	413·13
		A modified do. ..	200·74	179·69	363·44	167·19	201·23
		A failure in ..	384·76	396·81	342·44	343·85	385·64
		Total ..	1000·	1000·	1000·	1000·	1000·
Recruits ..	21,686	A perfect vaccine pustule ..	350·06	388·71	427·61	536·64	398·37
		A modified do.	187·09	221·16	251·93	206·06	217·33
		A failure in ..	462·85	390·13	320·46	257·30	384·30
		Total ..	1000·	1000·	1000·	1000·	1000·

United Kingdom.

Embodied Militia.	Total Number Vaccinated.	Results.	In those who bore marks of previous Small-pox.	In those who bore good marks of previous Vaccination.	In those who bore doubtful marks of previous Vaccination.	In those who bore no mark of previous Vaccination or Small-pox.	Total.
Soldiers, not Recruits	1,598	A perfect vaccine pustule ..	327·07	294·57	612·12	451·85	316·06
		A modified do. ..	191·73	236·44	193·94	192·59	220·90
		A failure in ..	481·20	468·99	193·94	355·56	433·04
		Total ..	1000·	1000·	1000·	1000·	1000·
Recruits ..	4,823	A perfect vaccine pustule ..	351·14	295·00	415·18	585·03	326·97
		A modified do. ..	212·28	248·59	174·11	105·45	230·77
		A failure in ..	436·58	256·41	410·71	309·52	442·26
		Total ..	1000·	1000·	1000·	1000·	1000·

The practice of re-vaccination has been adopted in most of the continental armies for many years, and the results in some of them have been published by Mr. Simon, in his report on vaccination, made to the General Board of Health in 1858. The following table shows the results in the Wirtemburg, Bavarian, and Prussian armies, compared with the preceding:—

	Number of Re-vaccinations.	Results in 1,000 Re-Vaccinations.		
		Perfect Success.	Modified Success.	Failures.
Wirtemburg	14,384	340·2	248·3	411·5
Bavarian	46,023	347·3	220·6	432·
Prussian (1836-40)	216,426	456·3	215·0	328·7
British (Recruits)	21,686	346·1	220·9	433·

The returns of the Wirtemburg army alone have been published with the same detailed information as given in the Abstract in the Appendix, and the results are therefore submitted, for the sake of comparison with those on the preceding page.

Degree of Success of Re-Vaccination.	Of Cases with normal cicatrices of Vaccination there were 7,845; and among these the results per 1,000 were	Of Cases with defective cicatrices of Vaccination there were 3,545; and among these the results per 1,000 were	Of Cases with no cicatrices of Vaccination, or Small-pox, there were 2,026, and among these the results per 1,000 were	Of Cases bearing marks of previous Small-pox there were 266, and among these the results per 1,000 were
Perfect	310·4	280·7	337·3	319·5
Modified	280·5	259·	191·1	248·1
None	409·2	460·4	471·6	432·3

The deductions to be drawn from the preceding facts are so clearly stated by Mr. Simon, that we shall content ourselves with extracting them from his Report :— *United Kingdom.*

"Is it then a legitimate inference from these figures, that if the same soldiers had been exposed to an atmosphere of small-pox infection, every third man would have caught the disease? Certainly not. Inoculation of lymph (whether vaccine or variolous) is, so to speak, a finer, and more delicate test of susceptibility to the small-pox poison than is the breathing of an infected atmosphere; so that many persons, when the lymph of cow-pox or small-pox is inserted in their skin, will give, locally at least, evidences of susceptibility, which no atmospheric infection would have elicited from them. And of this perhaps there can be no more ready illustration than by noticing (either in another part of the annexed table, or on a still larger scale in a subsequent table, which represents the re-vaccinations at Kasan) that persons who bore marks of previous small-pox were, in at least equal proportion with previously vaccinated persons, capable of producing perfect vaccine vesicles; and probably they too, if tested with variolous matter, would have shown at the inoculated part, similar signs of susceptibility: whereas, notoriously, of persons who have once had small-pox, not nearly one-third becomes afterwards capable of contracting small-pox by frequenting the neighbourhood of the sick.

"For this reason (greatly corroborated by what had already in every-day practice been observed of the immunity of once-vaccinated persons) it was evidently impossible to argue that all who on re-vaccination yielded perfect vaccine vesicles would, on ordinary exposure to small-pox infection, have become infected with small-pox. On the other hand, there could be little reason to doubt that they would have been distinctively *the endangered class*. Not that all, or nearly all of them would have suffered, but that, from among them, more than from among other vaccinated persons, the occasional sufferers by small-pox would have come." (p. 34.)

In proof of the practical value of re-vaccination, Mr. Simon states, on the authority of Professor Heim, that in Wirtemburg—

"During the five years, 1833-7, though small-pox infection had been sixteen times imported into different regiments of the army, there had ensued among the 14,384 re-vaccinated soldiers, only—in the person of one whose re-vaccination two years before had been followed by 'modified success'—a single instance of varioloid." (p. 35.)

In the Prussian army :—

"During the ten years preceding 1831, cases of post-vaccinal small-pox were increasing in number and fatality; attacks were counted annually by many hundreds, and within the three years, 1831-3, there had occurred no fewer than 312 deaths by small-pox. For the last 20 years the Prussian army has represented an almost entirely re-vaccinated population. And what has been the contrast? 104 annual deaths by small-pox was the last experience of the former system; 2 annual deaths by small-pox has been the average for the re-vaccinated army. Analysing, moreover, the 40 fatal cases of small-pox which, during the last 20 years have occurred in the Prussian army, we find that only four of the number were persons who (it is said) had been successfully re-vaccinated."

"From 1843, re-vaccination has been compulsory in the Bavarian army; and from that date to the present time (we are told) neither a single death by small-pox, nor even a single case of unmodified small-pox, has occurred in that population. For the last 21 years, re-vaccination has been general in the Danish army, and for the last 13 years in the Danish navy; and these two populations (we are informed) have almost entirely escaped contagion

United Kingdom.

during several epidemics of small-pox. The practice of Sweden has been similar, and its results also satisfactory." (p. 36.)

The practice has not been sufficiently long established in the British army to enable its effects to be thus tested, but these details relating to other armies are sufficient to show the practical importance of the measure, and to lead us to anticipate from its adoption a similar reduction in the prevalence and mortality of small-pox.

In October, 1859, erysipelas followed the operation of re-vaccination in four cases in the Depôt Battalion at Parkhurst, Isle of Wight, and in one of these sloughing to such an extent occurred as to render amputation close to the shoulder-joint necessary. There was at the time a considerable amount of typhoid fever and erysipelas among the inhabitants of Newport, and several cases had occurred in the barracks. Re-vaccination, and indeed all other surgical operations, were consequently suspended, but unfortunately not till after these cases had occurred. These are the only accidents which have been reported in connection with upwards of 32,000 cases of re-vaccination, of which the results are given in the preceding tables.

Section II.
On the Extent of Invaliding.

nvaliding.

In consequence of difficulties arising from the changes which have been made in the returns, we are unable to specify the diseases on account of which the invalids from regiments serving at home were discharged the service. The following table, however, compiled from the War Office Returns, shows the number discharged from the different arms in the course of the year on account of disability:—

	Household Cavalry. Strength, 1,213.		Dragoon Guards and Dragoons. Strength, 8,059.		Foot Guards. Strength, 5,939.		Infantry Regiments. Strength 15,173.*	
	Nos. invalided.	Ratio per 1,000 of strength.	Nos. invalided.	Ratio per 1,000 of strength.	Nos. invalided.	Ratio per 1,000 of strength.	Nos. invalided.	Ratio per 1,000 of strength.
Under 21 years' service in Infantry, or 24 in Cavalry	9	7·42	118	14·64	118	19·87	158	10·41
Above 21 or 24 years	7	5·77	7	·87	60	10·10	20	1·32

* The strength here stated does not agree with that on p. 9, because it has been found necessary to omit several regiments in consequence of the return of the ages of the men serving in them not having been received at the War Office.

As it is customary to grant discharges for almost nominal disabilities to soldiers who have completed twenty-one years in infantry, or twenty-four in cavalry, the numbers discharged under these periods of service can alone be taken as indicating an amount of disease involving unfitness for military duty. If these results be compared with the proportion discharged as invalids under 21 or 24 years' service, in the ten years 1837-46, they will be found lower in all except the Foot Guards:— *United Kingdom.* Invaliding.

	Annual ratio per 1,000 invalided under 21 or 24 years' service.	
	1859.	1837–46.
Household Cavalry	7·42	14·73
Dragoon Guards and Dragoons	14·64	19·87
Foot Guards	19·87	17·17
Infantry Regiments	10·41	Not stated.

Thus it will be seen, that in the Foot Guards there has been an increase of 2½, but in the Cavalry, a decrease of 5 per 1,000. The previous average of the Infantry cannot be given, but the ratio, in 1859, was under that of the Cavalry, and very little above the Life Guards. We hope to be able, in next year's report, to specify the diseases by which the disability has been caused.

Section III.

On the Number constantly Sick in Hospital of the Troops serving in the United Kingdom.

In Abstract No. II of Appendix, the average daily sick in hospital will be found as taken from the Annual Sick Reports. From the data thus furnished, and the tables showing the strength and admissions into hospital, the following table has been compiled:— Mean Sick.

	Household Cavalry.	Dragoon Guards and Dragoons.	Military Train.	Foot Guards.	Infantry Regiments.
Mean daily sick per 1,000 of strength..	28·70	51·13	71·82	51·76	50·91
	days.	days.	days.	days.	days.
Average sickness to each man in the course of the year..	10·47	18·66	26·21	18·89	18·58
Average duration of each case	19·46	19·02	20·75	23·87	19·28

United Kingdom.

Mean sick.

This shows a remarkable identity in the mean sick, and in the average sickness in the course of the year to each man in the Cavalry, Foot Guards and Infantry, while there is a great exemption in the Household Cavalry, and excess in the Military Train—the former, probably due to the very small amount of venereal among them, and the latter, perhaps to exceptional circumstances connected with their very recent embodiment. But, with these differences, it is remarkable that the average time of treatment in hospital should so very closely approximate, the only marked excess being in the Foot Guards, and attributable, probably, to their having a larger proportion of consumption among them.

As compared with the results of the previous period, there is a considerable increase in the mean daily sick, which was estimated at 40 per 1,000 in the Cavalry, and 42 per 1,000 in the Guards; but it is not improbable that the difference may be, in part at least, attributable to the records of the average sick being kept with more accuracy.

Section IV.

On the Influence of Age on the Mortality of Troops serving in the United Kingdom.

Influence of age.

The following table, compiled from Abstract No. III of Appendix, shows the mortality, at different ages, in the various arms, compared with what occurs in the civil population at the same periods of life :—

Annual ratio of Deaths per 1,000 Living at the following Ages :—

	Under 20.		20—24.		25—29.		30—34.		35—39.		40 and upwards.		Total.	
	1859	1837–46	1859	1837–46	1859	1837–46	1859	1837–46	1859	1837–46	1859	1837–46	1859	1837–46
Household Cavalry	..	7·5	3·38	11·7	6·85	10·3	9·05	13·3	16·13	8·4	15·04	13·4	8·26	11·1
Dragoon Guards and Dragoons ..	5·07	8·1	4·	11·8	12·96	14·3	15·	14·6	15·86	15·3	34·48	18·3	7·87	13·5
Military Train	..	..	7·66	..	..	..	21·27	..	37·04	..	..	..	5·45	..
Foot Guards	7·92	11·1	7 34	21·6	7·80	21·1	12·07	19·5	26·47	22·4	9·71	26·2	9·04	20·4
Infantry Regiments	5·82	13·1	7·21	17·8	7·80	19·8	11·97	19·8	18·31	21·	15·50	23·4	8·02	17·8
Depot Battalions	6·31	..	10·13	..	12·39	..	20·11	..	37·97	..	44·78	..	13·52	..
Average of preceding, exclusive of Depôt Battalions	5·43	..	6·28	..	8·64	..	12·57	..	19·64	..	21·21	..	..	..
Civil Male Population — England & Wales generally	7·41*	..	8·42	..	9·21	..	10·23	..	11·63	..	13·55*	..	..	..
Civil Male Population — Healthy districts in ditto	5·83*	..	7·30	..	7·93	..	8·36	..	9.	..	9·86*	..	..	..

* The ratio of mortality of the civil population under 20 has been calculated for the ages 17–19, and that of 40 and upwards for the ages 40–44. The data for England and Wales have been obtained from the Life Table in the 12th Vol. of the Registrar-General's Reports, and for Healthy Districts from Dr. Farr's Life Table, published in the 149th volume of the Philosophical Transactions.

United Kingdom.

Influence of age.

United Kingdom.

Influence of age.

From this table it will be seen, that, with the exception of the Depôt Battalions, the mortality under thirty years of age does not differ greatly from that of the male population of healthy districts. There are some slight irregularities, particularly in the Cavalry, but they are, probably, attributable to the numbers not being sufficient to give a correct average. Above thirty years of age, however, the ratio considerably exceeds that of the civil population, a result which strongly confirms the views already expressed that the marked reduction in the mortality has been, to a great extent, due to the circumstance of there being a large proportion of young soldiers who have not been exposed to the deteriorating influences which affect the army for a sufficient length of time to have succumbed to them. We entertain a strong conviction that the sanitary improvements recently introduced into the Service will do much to prevent such deterioration in future, but it will require the experience of some years to determine whether it is possible to keep the rate of mortality among soldiers in this country as low as that of the civil population of the most healthy districts at corresponding ages.

The high ratio in the Depôt Battalions at all ages above twenty, but more strongly marked still above thirty, is, probably, attributable to the number of men serving in them whose constitutions have been impaired by foreign service, and many of whom have been sent home to the depôt labouring under chronic disease contracted abroad.

II. On the Health of the Troops serving in the Mediterranean.

Section I.

Sickness and Mortality.

I.—Gibraltar.

Gibraltar.

In the beginning of the year 1859, the garrison of Gibraltar was composed of Royal Artillery, Royal Engineers, the 2nd Battalions of the 6th, 7th, and 8th, and the 1st Battalion of the 25th, Regiments, and in May it was augmented by the arrival of the 100th Regiment.

The average strength during the year was 5,153; the admissions into hospital were 4,889, and the deaths from all causes 37, being in the ratio of 949 and 7·18 per 1,000 of the strength. But if 3 invalids who died after their return to England be included, the deaths will be increased to 40, or in the ratio of 7·76 per 1,000 of the strength.

If these results be compared with those of the ten years, 1837–46, as shown in the last published volume of Statistical Reports, they afford most satisfactory evidence of the healthy condition of the troops during the past year, the admissions into hospital having then averaged 939, and the deaths from all causes, inclusive of those of invalids who had left the garrison, 13·58 per 1,000. Thus, there has been a marked reduction in the mortality at least, which is almost identical with that of the Infantry regiments serving in the United Kingdom in the same year.

The diseases by which the admissions into hospital were occasioned, and the causes of death, will be found detailed in Abstract No. V of Appendix, of which the following is a classified summary. With a view to facilitate comparison, the Abstract contained in the Appendix to the previous Report* has been re-arranged according to the new classification, and the results are embodied in the following table:—

* Statistical Report on the Sickness, Mortality, and Invaliding among the Troops serving in the Mediterranean, 1837–46. Presented to Parliament, 1853.

Classes.	Orders.		1859.—Strength 5,153.						1837-46. Average Annual Strength, 3,313.		Infantry at Home, 1859.	
			Admitted into Hospital.	Deaths at Gibraltar.	Deaths of Invalids.	Total Died.	Annual ratio per 1,000 of Strength. Admitted.	Annual ratio per 1,000 of Strength. Died.	Annual ratio per 1,000 of Strength. Admitted.	Annual ratio per 1,000 of Strength. Died.	Annual ratio per 1,000. Admitted.	Annual ratio per 1,000. Died.
I.	1	Miasmatic diseases	1,472	20	..	20	285·6	3·88	356·4	3·47	168·1	1·12
	2	Enthetic „	1,334	..	..	..	258·9	..	78·8	..	399·4	..
	3	Dietic „	..	2	..	2	..	·39	·2	..	1·2	..
	4	Parasitic „	52	..	..	..	10·1	..	1·7	..	27·2	..
II.	1	Diathetic „	38	..	..	..	7·4	..	3·1	·09	2·	·10
	2	Tubercular „	31	2	3	5	6·	·97	11·	4·89	12·7	2·55
		Diseases of the—										
III.	1	Nervous system	81	1	..	1	15·7	·19	18·6	1·15	11·3	·51
	2	Circulatory „	54	2	..	2	10·5	·39	4·5	·63	7·	·66
	3	Respiratory „	350	1	..	1	67·9	·19	125·3	1·03	94·3	1·12
	4	Digestive „	150	2	..	2	29·1	·39	73·9	·72	28·4	·41
	5	Urinary „	10	..	..	..	1·9	..	1·4	..	1·4	·15
	6	Reproductive „	9	..	..	..	1·7	..	1·3	..	1·	..
	7	Locomotive „	17	..	..	..	3·3	..	·7	..	2·3	·05
	8	Integumentary „	837	..	..	..	162·5	..	152·6	·21	128·1	..
IV. ..	4	Diseases of Nutrition	3	..	..	..	·6	..	·2	·09	2·5	..
V.	1	Accidents	355	1	..	1	68·9	·19	100·9	·82	60·6	·77
	3	Homicide	..	..	..	..	..	..	..	·03	..	..
	4	Suicide	..	5	..	5	..	·98	..	·30	·1	·15
	5	Execution	..	1	..	1	..	.19	..	·06	..	..
	6	Corporal punishment	23	..	..	..	4·5	..	5·2	..	5·4	..
		Diseases not stated	73	..	..	..	14·2	..	2·9	·09	11·	..
		Total	4,889	37	3	40	948·8	7·76	938·7	13·58	964·0	7·59

On examining this table, it will be found, that while the proportion of admissions in 1859 has exceeded, to a very trifling extent, the average of the ten years, 1837-46, a remarkable change has taken place in the diseases. If the admissions by those of the enthetic order, consisting entirely of the various forms of venereal, be deducted, the sickness in 1859, compared with the previous average, has been as 690 to 859, being a reduction to the extent of 169 per 1,000 of the strength. Again, in looking to the mortality, we find that the reduction, amounting to upwards of two-fifths of the previous rate, has been chiefly, though not exclusively, in the order of tubercular diseases, the most important of which are pulmonary consumption and spitting of blood. *Gibraltar.*

In the following remarks the principal points of difference will be more fully detailed.

Miasmatic Diseases.

	1859.	1837–46.
Annual ratio per 1,000 of Admissions	285·6	356·6
„ „ Deaths	3·88	3·47

There has been a decrease in the admissions by these diseases to the extent of 70 per 1,000, but a slight increase in the mortality. The order, however, comprises such diversity of diseases, that we must subdivide them in order to arrive at correct deductions. With this view the following table has been framed:—

	1859.		Annual ratio per 1,000.			
			1859.		1837–46.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eruptive Fevers	19	1	3·68	·19	1·63	..
Paroxysmal Fevers	15	..	2·91	..	5·85	·09
Continued „	554	15	107·51	2·91	75·46	1·87
Dysentery, Diarrhœa, and Cholera	389	4	75·49	·78	145·	1·18
Sore throat	89	..	17·27	..	14·82	..
Ophthalmia	255	..	49·48	..	70·54	..
Rheumatism	143	..	27·75	..	41·26	·06

Eruptive Fevers have exceeded the average in consequence of 15 cases of small-pox having occurred during the last

Gibraltar. quarter. It appears to have been introduced into the garrison by two seamen, who were sent into hospital on the 23rd of October from H.M.S. "James Watt." In 7 of the 15 cases, the men were attacked while under treatment in hospital for other diseases, and of these one died; the others were admitted from barracks. The Royal Artillery had 2 cases; the 2nd Battalion 8th Regiment, 4, all of them previously in hospital; the 25th Regiment one, and the 100th had 8, of whom 3 were patients in hospital. These men are all stated to have borne marks of previous vaccination, and only two of the cases are reported to have been severe. The disease appears to have spread among the crew of the "James Watt," but the subsequent cases were treated in a hulk set apart for the purpose. The civil population suffered also, but we have no information respecting the progress of the disease among them.

There was only one case of scarlet fever, and that in a soldier who had been attending upon a naval officer who laboured under the disease. Although there were several cases among seamen of the Royal Navy, it did not extend further among the troops.

Paroxysmal Fevers have been considerably below the average, and are so rare as scarcely to require any remark. They were all of the intermittent type, and pretty equally distributed among the various corps. The ratio has been exactly the same as among the Infantry regiments at home.

Continued Fevers have shown a very marked increase, both in prevalence and fatal character, during the year 1859. They do not, however, appear to have assumed the form of an epidemic.

The admissions in the different quarters of the year were, in the first, 94; second, 152; third, 149; fourth, 157. But, as the strength varied considerably, we have reduced these figures to the annual ratio per 1,000 of the strength, and, making the necessary correction for the difference in the number of days in each quarter, have obtained the following results:—

1st Quarter.. ..	84	3rd Quarter.. ..	104
2nd „	128	4th „	110

After a careful examination of all the reports, we are unable to attribute the increase in fevers to any other cause than the overcrowding of the barracks. It began in the second quarter of the year, when an augmentation of the garrison had taken place by the arrival of the 100th Regiment and reinforcements to the Royal Artillery, and when

the space in barracks, already sufficiently limited, was thereby necessarily reduced. The overcrowding was partially obviated by encamping the 25th Regiment on the Isthmus, where it remained till the 3rd of September, and was then relieved by the 76th Regiment. From the topographical reports of the medical officers, it appears that in very few of the barracks did the cubical space per man amount to 500 feet, and in some it was under 400. *Gibraltar.*

The admissions by continued fevers occurred in the following proportion in the different corps:—

Royal Artillery and Engineers	94	per 1,000 of Strength.
2nd Battalion 6th Regiment	127	„ „
2nd „ 7th „	141	„ „
2nd „ 8th „	72	„ „
1st „ 25th „	55	„ „
100th Regiment	194	„ „

It is worthy of remark, as corroborating the opinion above expressed regarding the principal cause of the fever, that the lowest proportion of admissions occurred in the 25th Regiment, which, during four months and a half, comprising the hottest period of the year, was encamped on the Isthmus. The very high relative rate in the 100th Regiment may have been partly owing to its having been very recently raised and the men being unaccustomed to the atmosphere of a crowded barrack.

The prevalence of fever may also have been in some degree attributable to the state of the drains, which, although much improved, are still capable of amelioration, but the limited supply of water upon the rock has always been an obstacle to their being frequently and thoroughly flushed. It has been in continued fevers, dysentery, and diarrhœa, that the excess of admissions by miasmatic diseases in Gibraltar over those among the Infantry at home has taken place.

Dysentery, Diarrhœa, and Cholera have undergone a marked reduction compared with the previous ten years, but the proportion of deaths to cases has been rather higher than formerly.

Sore throat has been slightly in excess of the previous average, but the proportion of admissions to strength is only half that of the Infantry regiments at home.

Ophthalmia is also less prevalent, but still gives rise to a considerable amount of inefficiency. The cases were most numerous in the 2nd Battalion 8th, the 25th, and the 100th Regiments, but no reason for this has been assigned by the medical officers. The form of the disease was conjunctival

Gibraltar. inflammation, generally of a mild character, and yielding easily to the usual remedies.

Rheumatism has diminished by one-third compared with the previous average, but this may probably be explained by the very small number of old soldiers in garrison in 1859, who are most liable to this disease.

Extremities Diseases.—There has been an enormous increase in these diseases, which have been thrice as numerous as during the previous period, although still much lower than among the Infantry in the United Kingdom.

It is difficult to assign any reason for this except that during 1859, the fleet was more frequently than usual at Gibraltar, and it is believed that the disease was greatly kept up by the sailors. So far as can be ascertained the police regulations respecting prostitutes have neither been relaxed nor inefficiently put in force, but when the admissions by venereal diseases amount to upwards of a fourth of the strength of the garrison, and exhibit such a contrast with the results of former periods, this subject appears to require a searching investigation.

Diatetic Diseases.—The two deaths recorded under this order were those of men who died from suffocation while drunk. One of them was found dead in a wine shop in the town, and the other in his barrack room.

Parasitic Diseases.—The apparent increase in this order, is probably owing to cases of itch having formerly been returned under the general term of diseases of the skin, and it having been found impossible to separate them from these affections in remodelling the tables.

Diathetic Diseases have been twice as numerous as formerly, but are the cause of so very little sickness and mortality, as scarcely to require any remark.

Tuberculan Diseases.—It is in this order of diseases, formerly the cause of nearly one-third of the mortality of the garrison, that the most important change has taken place; the admissions having amounted in 1859 to only one-half of the former average, and the mortality having fallen from 4·89 to 0·07 per 1,000. During the period now under review, the garrison, with the exception of one regiment, was composed of newly raised battalions, and it may be that the men had not been so long exposed to the deteriorating influences which have hitherto in the army operated in the production of consumption, as to have suffered from them. The increased facilities also for sending home invalids in the mail steamers, which now run weekly, may perhaps account partly for the reduction. But making a

liberal allowance for this, there still remains a very marked and satisfactory improvement. *Gibraltar.*

The admissions by these diseases have only amounted to half the proportion in the Infantry generally, and the deaths to rather more than half the proportion in the second battalions serving at home.

Of the orders comprised in the class "Local Diseases," it may be sufficient to observe, that there has been a marked reduction in the mortality, and also in the admissions, with the exception of those of the circulatory, locomotive, and integumentary systems.

Under the head of *delirium tremens*, however, we regret to observe an increase in the admissions, which have amounted to 5 per 1,000 of the strength, while the average of the previous period was only 3·1. Of 26 cases, 14 occurred in the Ordnance Corps, and only 12 in the Regiments of the Line.

Accidents, Violence, &c.—There has been a reduction in the admissions by this class, and a very slight increase in the deaths, which have amounted to 1·36 per 1,000, against a former average of 1·21. Five men committed suicide; one cut his throat, and the other four shot themselves. Of the five, four were artillerymen, a fact of some significance, when taken in connection with the excess of *delirium tremens*, above noticed.

In 73 admissions, amounting to 14·2 per 1,000 of the strength, the diseases are not stated. They were mostly entered under the head of "Observation," and the result unfortunately has not been recorded. It is believed that in future this source of error will rarely occur.

II.—Malta.

The garrison of Malta, in the beginning of 1859, consisted of part of the 6th Brigade of Royal Artillery, two companies of Royal Engineers, the 2nd Battalions of the 3rd and 15th Regiments, the 1st Battalion 21st Regiment, the 4th Battalion Rifle Brigade, and the Royal Malta Fencibles. In the end of February the 2nd Battalion 23rd Regiment joined direct from England, and the 2nd Battalion 22nd in the end of May. *Malta.*

The average strength during the year was 5,310, exclusive of the Royal Malta Fencibles. The admissions into hospital amounted to 6,446, and the deaths from all causes to 96, being in the annual ratio of 1,214 and 18·08 per 1,000

Malta. of the force. But to the deaths must be added 5 of invalids, which increase the mortality to 19·02 per 1,000.

On comparing these results with the average of the ten years, 1837-46, a considerable increase will be found, both in the sickness and in the deaths within the limits of the command, which were formerly only 1,120, and 16·77 per 1,000, but the total mortality of the two periods closely corresponds.

The following table, compiled from Abstract No. V of Appendix, shows the groups of diseases by which the sickness and mortality have been caused in the two periods respectively:—

	1859.—Strength 5,310.						1837-46. Average Annual Strength 2,117.	
	Admitted into Hospital.	Deaths		Total Died.	Annual ratio per 1,000 of Strength.		Annual ratio per 1,000 of Strength.	
		in Malta.	of Invalids.		Admitted.	Died.	Admitted	Died.
I.								
1. Miasmatic diseases	2,960	59	..	59	557·5	11·11	497·7	6·80
2. Enthetic „	793	..	..	..	149·3	..	98·8	..
3. Dietic „	14	..	..	..	2·6	..	·05	·05
4. Parasitic „	85	..	..	..	16·	..	3·6	..
II.								
1. Diathetic „	11	..	..	..	2·1	..	2·4	·09
2. Tubercular „	75	9	3	12	14·1	2·26	13·9	6·38
III.								
Diseases of the—								
1. Nervous system	93	6	1	7	17·5	1·32	15·4	·85
2. Circulatory „	30	4	1	5	9·4	·94	4·3	·42
3. Respiratory „	481	9	..	9	90·6	1·69	131·1	1·65
4. Digestive „	295	1	..	1	55·6	·19	101·65	1·23
5. Urinary „	6	1	..	1	1·1	·19	1·1	..
6. Reproductive „	6	..	..	..	1·1	..	·3	..
7. Locomotive „	7	..	..	..	1·3	..	1·4	..
8. Integumentary „	1,055	..	..	..	198·7	..	135·6	·14
IV.								
4. Diseases of Nutrition ..	7	..	..	..	1·3	..	·1	·05
V.								
1. Accidents	427	7	..	7	80·4	1·32	99·7	1·51
3. Homicide	..	..	..	..	..	..	..	..
4. Suicide	..	..	..	..	..	..	..	·19
5. Execution	..	..	..	..	..	..	..	..
6. Corporal Punishment ..	20	..	..	..	3·8	..	10·7	..
Diseases not stated	61	..	..	..	11·5	..	2·1	..
Total	6,446	96	5	101	1213·9	19·02	1119·9	19·36

This table shows a marked increase in the admissions into hospital by miasmatic and enthetic diseases, and by those of the integumentary system; while there has been a considerable reduction in those of the respiratory and digestive systems. As regards mortality, there has been a great excess in the deaths by miasmatic, but a corresponding decrease in those by tubercular diseases. *Malta.*

We shall now examine, a little more in detail, the various groups by which the admissions and deaths have been occasioned.

1. Miasmatic Diseases.

	1859.	1837–46.
Annual ratio of Admissions per 1,000	564·2	497·7
„ Deaths „	11·11	6·80

With a view to study the particular affections by which the increase, both in admissions and deaths by miasmatic diseases, has been occasioned, we have subdivided the order into groups as in the report upon Gibraltar, with the following results:—

	1859.		Annual ratio per 1,000.			
			1859.		1837–46.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eruptive Fevers	1	..	·2	..	1·6	·05
Paroxysmal „	59	..	11·1	..	2·8	·28
Continued „	1,431	47	269·5	8·85	207·3	1·46
Dysentery, Diarrhœa, &c. ..	803	10	151·2	1·88	150·5	2·41
Sore Throat	79	..	14·9	..	17·1	..
Ophthalmia	286	..	53·9	..	65·9	..
Rheumatism	288	2	54·2	·38	42·7	.09

From this it appears that, although there has been a slight increase in paroxysmal fevers and rheumatism, the great difference, both in the number of cases and deaths, has been attributable to fevers of the continued type—the

Malta. excess in 1859 over the previous average amounting to 62 per 1,000 in the admissions, and 7·4 per 1,000 in the deaths. The disease appears to have become more than usually prevalent in the second quarter of the year, to have reached its maximum in the third, but to have caused the greatest number of deaths in the fourth quarter.

The admissions and deaths in each quarter, and the annual ratio of these per 1,000 of the strength, are shown in the following table. The necessary correction has been made in the calculations for the difference in the number of days :—

		1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
Admissions		70	316	705	340
Deaths		4	3	17	23
Annual ratio per 1,000	Admitted	68·9	245·1	468·7	225·5
	Died	3·94	2·33	11·30	15·26

The prevalence and mortality of fever differed greatly in the various corps serving in the island, as will be seen by the following statement of the admissions and deaths per 1,000 of mean strength in each :—

	Admitted with Fever.	Died by Fever.
Royal Artillery	194·1	8·50
Royal Engineers	255·2	4·18
2nd Battalion 3rd Regiment	233·2	4·64
2nd „ 15th „	245·1	9·08
1st „ 21st „	129·7	2·36
2nd „ 22nd „	603·9	6·49
2nd „ 23rd „	466·2	23·45
4th „ Rifle Brigade	309·2	17·32

Thus the admissions were exceedingly numerous in the 22nd and 23rd Regiments, and next to these in the Rifle Brigade; but the mortality was greatest in the 23rd Regiment, Rifle Brigade, 15th Regiment, and Royal Artillery. The only corps which appears to have enjoyed a marked exemption from the disease, was the 1st Battalion 21st Regiment.

The prevalence of fever was at first attributed by the medical officers to the large number of young soldiers who were for the first time exposed to the heat of a

Malta summer; while, in addition to this, the temperature in the third quarter of 1859 was above the average. This view was, to a certain extent, supported by the exemption enjoyed by the only old battalion serving in the island, and by the high proportion of admissions in the 2nd Battalion 22nd Regiment, which arrived from England in the end of May just as the hot weather set in, and also had a detachment under canvas at St. George's Bay, for rifle instruction, during the hottest season, when the men were very much exposed. The quality of the water in the tanks during the dry season, and the overcrowded state of the barracks, are also believed to have contributed to the production of this disease. But it became evident that there was also some local cause in operation to which the great amount, and the aggravated character of the fever in the 23rd Regiment and Rifle Brigade, must be attributed. The former of these corps was quartered in Fort Ricasoli, and the latter in the Lower St. Elmo barracks, till the 26th of September when they exchanged quarters. The local causes to which the fever in them was attributed by the surgeons in charge, are thus described by Dr. Forrest, the principal medical officer:— *Malta.*

"The Royal Artillery occupy the barracks situated on the upper part of Fort St. Elmo, on an elevated position, and freely exposed in all directions. The Rifle Brigade were quartered in the lower part of the same fort; but the barrack which was occupied by them, and subsequently by the 2nd Battalion 23rd Regiment, is almost on the level of the sea, and is completely enclosed on all sides, so that free access of air is impossible. It is, however, fully exposed to the heat of the sun; and, from the nature of its construction, is both badly ventilated and liable to dampness. A small parade ground or courtyard lies in front of the barrack, dividing it from the lofty wall which encloses the upper part of the Fort, and across this courtyard various sewers from privies in the military prison, and from Upper St. Elmo, pass. But its level is so little above that of the sea, that the contents of these sewers cannot flow freely along; they accumulate; the earth in the neighbourhood becomes infiltrated with decaying animal matter, and most offensive gases are produced. Such was the condition of affairs during the summer, and beginning of the autumn, and several cases of typhoid fever occurred, both among the Royal Artillery and Rifle Brigade. About the middle of September, operations were commenced for fitting up gas in the barrack, and trenches were dug for gaspipes in various directions over the parade ground. By the earth being turned up in this way, free escape was afforded to the effluvia from the decomposing matter—the well-known exciting cause of this form of fever—and the usual effects were produced, first, upon the Rifle Brigade and Royal Artillery, and subsequently on the 2nd Battalion of the 23rd Regiment, who, in consequence of their vicinity and continued residence, suffered much more than the others. It is also more than probable that the long protracted heat and absence of rain had considerable effect on the evolution of these effluvia, as after the rain began to fall, and cool weather set in, the admissions ceased."

In addition to this purely local cause, two large sewers,

Malta. coming from the city of Valetta, open on the rocks above the sea, very near to the western side of the barracks.

The fever, as might have been expected, was of the typhoid type, and of a very fatal character, the deaths amounting to 1 in 28 of all the cases, while in the 23rd Regiment, they were as high as 1 in 20, and in the Rifle Brigade, 1 in 18. On the average of the ten years, 1837-46, continued fever proved fatal to only 1 in 141 cases.

Enthetic Diseases.—The admissions by this order of diseases have been in the ratio of 149 per 1,000 of the strength, being an increase over the former ratio of 50 per 1,000. This has probably been attributable chiefly to the circumstance that the police surveillance of prostitutes was discontinued for some time, but, in consequence of representations made to the Governor, it has been again resumed, and we may hope to find the amount of venereal in consequence reduced. The exemption enjoyed by the troops from venereal, is very striking when compared with its prevalence among the Infantry at home, or even at Gibraltar, as shown in the preceding pages.

Dietic Diseases show an apparent increase, but this may be explained by the introduction of intemperance into the nomenclature. Under this head nine cases were admitted which would probably have been formerly entered under the head of fever.

Parasitic Diseases also appear to have been more prevalent, but, as already explained, the comparison with the previous period is not strictly accurate, owing to the change in the classification of skin diseases.

Diathetic Diseases have prevailed to exactly the same extent as formerly.

Tubercular Diseases.—While in the admissions by these diseases a slight increase has taken place, there has been a very marked reduction in the mortality, which has amounted to little more than one-third of the previous average, and has been almost exactly the same as among the Infantry at home. Thus the same improvement in this respect has taken place as at Gibraltar, though not quite so marked, and may probably be attributable to the same causes. There can be little doubt that the increased facilities for sending home invalids when affected with pulmonary disease, must have had some share in this change, for the influence of the climate of Malta on such cases during the hot season is too well known to require comment, and as the invalids arrive in England with the disease in a less advanced stage than formerly, they are more likely to be in

a fit state to be discharged the service, or, in some instances, to benefit by change of climate so much as to become again fit for military duty. This view is so far corroborated by the fact that the mortality by consumption among the invalids sent home to be discharged in the ten years, 1837-46, amounted to 2 per 1,000 of the force serving at Malta, while in 1859 the proportion was only 0·57 per 1,000. *Malta.*

Diseases of the Nervous System have been rather above the average, chiefly from an increase in the cases of epilepsy and inflammation of the ear. *Delirium tremens*, however, has undergone a slight reduction.

Diseases of the Respiratory System show a very marked reduction, amounting to 40 per 1,000 of the strength, which has taken place chiefly in bronchitis. Similar satisfactory results have been obtained in regard to

Diseases of the Digestive Organs, the admissions by which have been 46 per 1,000 below the average. The difference is principally in cases of constipation and colic.

Diseases of the Integumentary System have greatly exceeded the average. About half the increase has been caused by boils and abscesses.

Violent Deaths from accident have been in nearly the same proportion as formerly. One from compression of the brain was the result of a blow, and one by poison occurred from a soldier drinking, by mistake, a solution of the bichloride of mercury, which had been made for the purpose of browning the barrels of the rifles. No death by suicide was recorded during the year.

Royal Malta Fencibles.

In the preceding remarks, we have omitted entirely the Royal Malta Fencibles, because, being natives of the island, and in many respects differently situated from regiments of the line, it might be anticipated that a considerable difference would be found in the rates of sickness and mortality, and in the diseases by which these were caused. During the year 1859, the admissions into hospital in this corps were 378 and the deaths 5, in an average strength of 610, being in the annual ratio of 619·6 and 8·19 per 1,000 of the strength. As the number of old soldiers is considerable in the corps, it is necessary, before making any comparison, to reduce the ratio, as was done in the United

Malta. Kingdom Report, to the proportion which would have occurred had the ages been distributed as in the Dragoon Guards and Dragoons. With this correction, it would only have amounted to 7·11 per 1,000, being 0·76 per 1,000 under that of the Cavalry at home, and 0·11 per 1,000 below the rate affecting the male population at corresponding ages in healthy districts in the United Kingdom.

The diseases by which the admissions into hospital and deaths were occasioned, will be found detailed in Abstract No. V of Appendix, of which the following is a summary:—

	Royal Malta Fencibles.		Annual ratio per 1,000 of Strength.					
Average strength	610		Malta Fencibles.		Line Regiments at Malta.		Infantry at Home.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Class I.								
1. Miasmatic diseases ..	109	2	178·6	3·27	557·5	11·11	168·1	1·12
2. Enthetic „ ..	33	..	54·2	..	149·3	..	399·4	..
3. Dietic „ ..	..	..	..	..	2·6	..	1·2	..
4. Parasitic „ ..	2	..	3·3	..	16·	..	27·2	..
Class II.								
1. Diathetic diseases ..	3	..	4·9	..	2·1	..	2·	·1
2. Tubercular „ ..	1	1	1·6	1·64	14·1	1·69	12·7	2·55
Class III. Diseases of the—								
1. Nervous system ..	10	..	16·4	..	17·5	1·13	11·3	·51
2. Circulatory „ ..	1	..	1·6	..	9·4	·76	7·	·66
3. Respiratory „ ..	40	1	65·6	1·64	90·6	1·69	94·3	1·12
4. Digestive „ ..	74	1	121·3	1·64	55·6	·19	28·4	·41
5. Urinary „ ..	3	..	4·9	..	1·1	·19	1·4	·15
6. Reproductive „ ..	..	..	..	..	1·1	..	1·	..
7. Locomotive „ ..	..	..	..	..	1·3	..	2·3	·05
8. Integumentary „ ..	59	..	96·7	..	198·7	..	128·1	..
Class IV.								
4. Diseases of Nutrition ..	..	..	..	..	1·3	..	2·5	..
Class V.								
1. Accidents	43	..	70·5	..	80·4	1·32	60·6	·77
3. Homicide „ ..	..	..	..	..	..	..	..	..
4. Suicide	..	..	..	..	..	..	·1	·15
6. Corporal Punishment ..	..	..	..	..	3·8	..	5·4	..
Diseases not stated ..	..	..	..	..	11·5	..	11·	..
Total..	378	5	619·6	8·19	1213·9	18·08	964·	7·59

An examination of this table shows, that the lower rate of admissions in the Malta Fencibles, compared with the Infantry serving at home, is entirely attributable to venereal;

the difference in the two classes of troops by these diseases alone, amounting to 345 per 1,000 of the strength. Even compared with the Infantry serving at Malta, the proportion of admissions by venereal in the Fencibles, amounts to only one-third; a result doubtless to be accounted for by the much larger proportion of married men in the corps. Their exemption from tubercular diseases, is also worthy of notice, for although the mortality is the same as in the Line regiments, the admissions are much less numerous; they also appear to be less subject to diseases of the respiratory organs. The only class from which they suffer more than the other troops, is that of diseases of the digestive organs. But considerable caution must be used in drawing deductions on these points, as the numbers under observation are too few, and the period is too limited, to give a fair average. It may be sufficient to observe, that, after deducting venereal, the amount of sickness corresponds closely with that among the Infantry serving at home, and that the mortality is rather under the average of the healthiest districts in England. *Malta.*

III.—Ionian Islands.

The military force in these Islands, on the 1st of January, 1859, consisted of three companies of Royal Artillery and one of Royal Engineers, the 2nd Battalions of the 4th and 9th Regiments, and the 1st Battalion of the 14th. In the beginning of June, the 2nd Battalion of the 2nd Regiment arrived from England as an augmentation to the force. *Ionian Islands.*

The admissions into hospital amounted to 3,225, and the deaths, from all causes, to 43, in an average strength of 3,660, being in the ratio of 881 and 11·75 per 1,000; but three deaths of invalids must be added, which raise the mortality to 12·57 per 1,000. These results are very satisfactory, as they show a lower ratio of sickness and mortality than has been experienced in these Islands during any of the thirty years included in previous reports, with the single exception of 1845, when the deaths were only 10·6 per 1,000, exclusive of those among invalids.

The diseases and causes of death will be found fully detailed in Abstract No. V of Appendix, of which the following table is a classified summary, with the addition of the average ratios of the ten years 1837–46, for the purpose of comparison.

Ionian Islands.

	1859.—Strength, 3,660.						1837-46. Average Annual Strength, 2,984.	
	Admitted into Hospital.	Deaths		Total Died.	Annual Ratio per 1,000 of Strength.		Annual Ratio per 1,000 of Strength.	
		In Ionian Islands.	Of Invalids.		Admitted.	Died.	Admitted.	Died.
Class I.								
1. Miasmatic diseases ..	1,357	26	..	26	370·8	7·11	521·5	7·12
2. Enthetic „ ..	508	..	..	..	138·8	..	85·5	·04
3. Dietic .. „ ..	1	..	..	..	·3	..	·1	·16
4. Parasitic „ ..	21	..	..	..	5·7	..	2·7	·04
Class II.								
1. Diathetic diseases ..	8	1	..	1	2·2	·27	4·6	·08
2. Tubercular „ ..	28	3	1	4	7·6	1·09	10·3	4·39
Class III. Diseases of the—								
1. Nervous system ..	53	5	..	5	14·5	1·37	15·0	1·56
2. Circulatory „ ..	14	2	1	3	3·8	·82	2·4	·26
3. Respiratory „ ..	232	..	..	..	63·4	..	127·1	1·96
4. Digestive „ ..	140	3	..	3	38·2	·82	63·2	1·02
5. Urinary „ ..	6	..	..	..	1·6	..	2·6	·04
6. Reproductive „ ..	2	..	..	..	·5	..	·5	
7. Locomotive „ ..	6	..	1	1	1·6	·27	·5	
8. Integumentary „ ..	566	..	..	..	154·7	..	179·9	
Class IV.								
4. Diseases of Nutrition	29	..	..	..	7·9	..	·1	
Class. V.								
1. Accidents	225	3	..	3	61·5	·82	110·0	·83
3. Homicide	..	..	..	..	..	..	..	·08
4. Suicide	..	..	..	..	..	..	..	·16
5. Execution	..	..	..	..	..	..	..	·04
6. Corporal Punishment .	13	..	..	..	3·6	..	9·1	
Diseases not stated ..	16	..	..	..	4·4	..	3·6	·16
Total	3,225	43	3	46	881·1	12·57	1138·7	17·94

A comparison of the results of the two periods shows a diminution, in the admissions, of 258, and in the mortality, of 5·37 per 1,000 of the strength.

We shall now proceed to analyse the classes of diseases in which this marked improvement has been observed.

Miasmatic Diseases.

	1859.	1837–46.
Admissions per 1,000 of strength	370·8	521·5
Deaths „ „	7·11	7·12

A reduction in the prevalence of these diseases has taken place to the extent of nearly 151 per 1,000 of the strength, but the mortality remains exactly as before. *Ionian Islands.*

Pursuing the same course as in the other reports, we find the admissions and deaths to have been by—

	1859.		Annual Ratio per 1,000.			
			1859.		1837-46.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eruptive Fevers	83	2	22·7	·55	·9	·04
Paroxysmal „	68	..	18·6	..	79·6	2·33
Continued „	613	23	167·5	6·20	190·6	3·47
Dysentery, Diarrhœa, and Cholera	214	1	58·5	·27	114·7	1·03
Sore Throat	80	..	21·8	..	18·8	0·4
Ophthalmia	191	..	52·2	..	93·7	
Rheumatism	105	..	28·7	..	35·3	·04

Eruptive Fevers have considerably exceeded the average, owing to the prevalence of scarlet fever in the form of an epidemic in the 2nd Battalion 9th Regiment, at Corfu. It broke out in the third quarter of the year, and did not cease till the regiment was moved from Fort Neuf Barracks. The disease was of a typhoid character, owing, probably, to local causes, which will be noticed when speaking of continued fevers. It was confined to the 9th Regiment, in which 78 cases occurred, with 2 deaths, while there were only three cases among the rest of the troops.

Paroxysmal Fevers have undergone a very marked reduction compared with previous periods, and have not been the cause of any deaths.

Continued Fevers, though in a slight degree less prevalent, have proved fatal to nearly double the usual amount. The whole of the deaths but two occurred in Corfu, where fever of a severe typhoid character prevailed to a great extent. Its relative prevalence in each quarter of the year, in that island, is shown in the following table :—

Corfu.	Jan.—March.	April—June.	July—Oct.	Nov.—Dec.
Mean strength	2,100	2,435	3,054	3,060
Admissions by continued fever.	42	113	218	50
Deaths .. fever.	5	4	9	3
Annual ratio per 1,000 Admitted ..	81·10	186·10	283·20	64·80
Annual ratio per 1,000 Died	9·66	6·59	11·69	3·89

Thus, it appears that the prevalence and mortality of continued fevers were greatest in the third quarter—a result

Ionian Islands.

in accordance with previous experience in the Mediterranean. They did not affect all the corps in the island alike, as will be seen by the following statement of the annual ratio per 1,000 of strength admitted and died in each. The periods during which the regiments were in Corfu are stated, and the necessary correction in the strength has been made with regard to such as were only for a portion of the year under observation :—

	Period.	Annual ratio per 1,000 strength.	
		Admitted with continued fever.	Died by continued fever.
Royal Artillery and Royal Engineers.	Jan. to Dec. inclusive	29·8	5·60
2nd Battalion 2nd Regiment ..	Jan. to Sept. „	166·9	5·06
2nd Battalion 4th Regiment ..	June to Dec. „	314·1	15·90
2nd Battalion 9th Regiment ..	Jan. to Dec. „	189·0	10·10
1st Battalion 14th Regiment ..	Oct. to Dec. „	88·0	..

Leaving out of consideration the 1st Battalion 14th Regiment, which was stationed in Corfu during the last quarter of the year only, when fever does not generally prevail to any great extent, the mortality by this disease appears to have exceeded the usual average in all the corps, but to have varied considerably in each. The Ordnance have enjoyed a marked exemption as regards prevalence, which may perhaps be attributable, in some degree, to their special duties and organization. It is worthy of remark, that during the summer months, the 2nd Battalion 2nd Regiment had two companies under canvas at Fort Abraham, and thus reduced the number in barracks, and removed one of the alleged causes of fever in this island. The 2nd Battalion 4th arrived from England just at the commencement of the hot weather, and probably, as in the case of the 2nd Battalion 22nd Regiment at Malta, the high ratio of admissions may be partly attributable to the exposure of the young soldiers composing it, to the great, and to them unusual, heat of a Mediterranean summer. While a considerable number of the admissions were doubtless cases of ephemeral fever from this cause, the high ratio of mortality shows, that disease of a much more formidable character prevailed. Only 56 cases and 9 deaths are returned under the head of typhoid fever; but this is probably due to the circumstance, that in the old returns, there was no distinct heading for this type, which was therefore usually returned under the general term of continued fever. There was a great tendency in all the cases to assume a typhoid character, and this was the type which occasioned the very high rate of mortality.

The causes assigned for the unusual prevalence of fever, were the great heat of the summer, the overcrowding of the barrack rooms, particularly after the arrival of the 2nd Battalion 4th Regiment in the beginning of June, and the very unsatisfactory sanitary condition of the town. *Ionian Islands.*

To the last of these causes may also be ascribed the peculiar form which the fever assumed, and also that of the cases of scarlet fever in the 9th Regiment, to which allusion has already been made.

With reference to the very defective sanitary condition of the town, Dr. Beatson, the Principal Medical Officer of the Command in 1859, remarks:—

"The sewerage is most defective, and the sewage, when it reaches the tideless sea, renders it almost putrescent. The water, for instance, under Fort Neuf, receives a large amount of the sewage of the town of Corfu, and if any one approaches it in a boat, and thus stirs up the stagnant, sickening fluid, the stench is perfectly overpowering, so much so, that I feel certain the health of the troops in Lower Fort Neuf can only be preserved by the most careful attention to personal cleanliness, to the avoidance of overcrowding, and good wholesome diet. Were any of these circumstances less favourable than they are, there are around them the seeds of disease, which only require neglect of the above precautions to develop themselves rapidly and severely. Situated as the town is, exactly between the Citadel and Fort Neuf, both must in some degree suffer, but the former certainly in a less degree than the latter. There is, besides, at the north-west angle of the glacis at Fort Neuf, a general slaughter-house for the whole town of Corfu, the offal of which is unceremoniously thrown into the tideless harbour, an evil which would be greater, were it not the fact, that many parts of the animals are here sold and used which elsewhere are generally thrown away; but still when fifty cattle are sometimes killed in a day, it is a nuisance requiring supervision."

Dr. Beatson also complains of want of due attention to cleanliness in and around the barrack occupied by the 9th Regiment (Fort Neuf), to which he partly attributes the high ratio of fever.

Dysentery, Diarrhœa, and Cholera prevailed to about half their former extent and caused only one death. There has also been a change in the relative proportion of dysentery and diarrhœa; the former being now scarcely one-tenth of the whole, while previously it was more than one-fifth.

Ophthalmia shows a very marked reduction, which would have been still greater, but for the prevalence of the disease in the 1st Battalion 14th Regiment, which had suffered to a great extent from it in Malta. Of 190 admissions into hospital, 120 were from this regiment alone.

Enthetic Diseases.—There has been an increase in the admissions by these diseases, which comprise all the forms of venereal, to the extent of 53 per 1,000 of the strength; but we have no information as to whether this has arisen

from any change in police regulations, or merely from the garrisons being composed chiefly of newly raised battalions, with a smaller proportion than usual of old and married soldiers, who would be less liable to contract the disease.

Tubercular Diseases, exhibit the same satisfactory results as in Gibraltar and Malta, the deaths being in the ratio of 3·30 per 1,000 below the average. The same causes to which we before alluded, have been in operation here, and, although it is difficult to assign an exact relative value to them, the results are in the highest degree satisfactory.

Local Diseases.—These appear scarcely to require comment, except to notice the great reduction in the admissions by those of the respiratory and digestive systems, which have prevailed to scarcely half the usual extent.

Violent Deaths.—The deaths from accidents have reached the usual average, omitting those from homicide, suicide, and execution, of which there were no instances in 1859. One man was killed by a shark whilst bathing at Corfu.

Although the number of men quartered in each of the islands, with the exception of Corfu and Cephalonia, is so small as to render the results liable to great fluctuations, we have prepared the following statement, showing the admissions into hospital and deaths in 1859 compared with the average of 1837-46 :—

	1859.			Annual ratio per 1,000 of mean Strength.			
	Average strength.	Admitted into hospital.	Deaths	1859.		1837–46.	
				Admitted.	Died.	Admitted.	Died.
Corfu and Vido..	2,663	2,294	41	861	15·37	1,085	15·8
Paxo	37	37	..	1,000	..	973	24·
Santa Maura ..	106	96	..	905	..	1,307	19·9
Cephalonia ..	484	416	..	860	..	1,114	15·
Zante	305	359	2	1,179	6·60	1,494	19·6
Ithaca	33	8	..	242	..	1,143	21·
Cerigo	32	16	..	500	..	1,153	19·6

Thus, in all the islands there has been a great reduction in the sickness and mortality in 1859, compared with the previous period; but it must not be forgotten that these have always been subject to considerable fluctuations. The following table shows the principal groups of diseases, but, owing to the very limited numbers of the force, it has not been deemed necessary to include Paxo, Santa Maura, Ithaca, and Cerigo in the table:—

Class.	Order.	Stations	Corfu.				Cephalonia.				Zante.			
		Average Strength	2,663.				484				305			
		Diseases.	Admitted.	Died.	Annual ratio per 1,000.		Admitted.	Died.	Annual ratio per 1,000.		Admitted.	Died.	Annual ratio per 1,000.	
					Admitted.	Died.			Admitted.	Died.			Admitted.	Died.
I.	1	Miasmatic diseases ..	960	24	360·5	9·01	222	..	458·7	..	94	2	308·2	6·6
	2	Enthetic „	341	..	128	..	61	..	126·0	..	101	..	333·1	..
	3	Dietic „	1	..	·4	..	..	..	..	..	..	..	..	..
	4	Parasitic „	14	..	5·3	..	4	..	8·3	..	3	..	9·8	..
II.	1	Diathetic „	6	1	2·2	·37	2	..	4·1	..	..	..	..	..
	2	Tubercular „	23	3	8·6	1·12	1	..	2·1	..	2	..	6·6	..
		Diseases of the—												
III.	1	Nervous system ..	37	5	13·9	1·88	6	..	12·4	..	8	..	26·2	..
	2	Circulatory „	15	2	5·6	·75	..	..	..	..	..	..	..	..
	3	Respiratory „	173	..	65·	..	17	..	35·1	..	28	..	91·8	..
	4	Digestive „	91	3	34·2	1·12	8	..	16·5	..	28	..	91·8	..
	5	Urinary „	1	..	·4	..	3	..	6·2	..	..	..	..	..
	6	Reproductive „	2	..	·7	..	..							
	7	Locomotive „	3	..	1·1	..	..	..	..	..	1	..	3·3	..
	8	Integumentary „	414	..	155·5	..	62	..	128·1	..	64	..	209·8	..
IV. ..	4	Diseases of Nutrition ..	26	..	9·8	..	1	..	2·1	..	2	..	6·6	..
V.	1	Accidents	167	3	62·7	1·12	23	..	47·5	..	26	..	85·2	..
	3	Homicide	..	..	..	..	..	..	..	..	..	..	..	..
	4	Suicide	..	..	..	..	..	..	..	..	..	..	..	..
	6	Corporal Punishment ..	12	..	4·5	..	1	..	2·1	..	..	..	..	..
		Diseases not stated ..	8	..	3·0	..	5	..	10·3	..	2	..	6·6	..
		Total	2,294	41	861·4	15·37	416	..	859·5	..	359	2	1179·0	6·6

Ionian Islands.

The points most deserving of notice in this table are the greater prevalence of venereal and of diseases of the nervous, respiratory, and digestive systems in Zante, and the exemption from diseases of the respiratory and digestive systems enjoyed by the troops in Cephalonia. The results of a series of years, however, would be necessary to justify our drawing any deductions on the subject.

Section II.

On the Extent of Invaliding among the Troops serving in the Mediterranean.

Mediterranean.

Invaliding.

During 1859 there were finally discharged the service at Chatham 54 invalids from Gibraltar, 44 from Malta, and 17 from the Ionian Islands, making a total of 115, or 8·14 per 1,000 of the strength serving in these Commands. The following table shows the diseases for which they were discharged * :—

	Gibraltar.	Malta.	Ionian Islands.	Mediterranean generally.
Cachexies and Scrofula	2	1	1	4
Weakly constitutions	..	3	..	3
Dysentery and Hepatic diseases ..	..	2	..	2
Eye diseases	2	20	6	28
Dislocations	..	1	..	1
Hernia	1	3	..	4
Mental diseases	3	1	2	6
Paralysis	1	..	1	2
Epilepsy	1	3	1	5
Deafness	2	..	..	2
Pulmonary disease	14	3	2	19
Cardiac „	11	3	2	16
Rheumatism and chronic pains ..	10	..	..	10
Stricture and Urinary diseases	1	..	..	1
Venereal disease	1	3	..	4
Worn out	1	..	2	3
Ulcers and Varix	4	1	..	5
Total	54	44	17	115
Ratio per 1000 of strength ..	10·48	8·29	4·64	8·14

The points most worthy of notice in this table are the comparatively large proportion of invalids from Gibraltar discharged for pulmonary and cardiac diseases, and from Malta

* We are compelled on the present occasion to adhere to the old classification of the disabilities of the Invalids. In future reports these will be arranged on the same principle as the diseases.

for diseases of the eye. The former, although not so great as to account for the reduced mortality which we have ascertained to have taken place from consumption, as compared with former periods, may at least explain the lower ratio at Gibraltar than in the other two Commands. *Mediterranean.* Invaliding.

We are unable, from want of data, to enter more fully into this subject, but it is believed that the forms of returns recently adopted will enable us to furnish more detailed information in future reports.

Section III.

Mean Daily Sick.

The following table shows the average number constantly sick in each of the three commands:— Mean sick.

	Average Strength.	Average constantly Sick.	Ratio per 1,000 of Strength constantly Sick.	
			1859	1838–46
Gibraltar	5153	241·68	46·90	43·33
Malta (exclusive of Royal Malta Fencibles)	5310	275·12	51·81	43·79
Ionian Islands	3660	162·72	44·46	44·90

From this table, combined with the data in the preceding report, the average sick time to each soldier, and the average duration of the cases of sickness in hospital, have been ascertained as follows:—

		Gibraltar.	Malta.	Ionian Islands.
		Days.	Days.	Days.
Average sick time to each soldier	1859	17·12	18·91	16·23
	1838–46 ..	15.81	15·98	16·39
Average duration of each case	1859	18·04	15·50	18·42
	1838–46 ..	17·02	14·74	14·19

From these tables it will be observed that the average number constantly sick, and the average sick time to each soldier, have increased in Gibraltar and Malta, but are almost

Mediterranean. Mean sick.

exactly the same as formerly in the Ionian Islands. The average duration of disease, however, has increased in all the Commands, but particularly in the Ionian Islands; a result, probably, of the amount of typhoid fever which came under treatment in the course of the year, and the convalescence from which was very protracted.

Section IV.

On the Influence of Age on the Mortality.

Influence of age.

The returns of the ages of the men serving not having been received from several of the regiments, the data on this subject are not complete; we have, however, compiled the following table from Abstract No. VI of Appendix, in which the details of the strength and deaths of those regiments which have furnished returns will be found stated in quinquennial periods:—

	Ratio of Deaths per 1,000 of Strength.						
	Under 20	20—24.	25—29.	30—34.	35—39.	40 and upwards.	Total.
Mediterranean generally 1859	9·28	12·01	20·78	25·64	12·15	55·55	13·32
Mediterranean generally 1837-46	12·0	16·3	15·1	16·4	25·4	34·4	
Infantry at home, 1859	5·82	7·21	7·80	11·97	18·31	15·50	

From this table it will be seen that the mortality under 25 has been lower than during the ten years 1837-46, but higher afterwards. The numbers, however, above 30 years of age, were too few in 1859 to warrant our attaching much importance to the results. The table also shows that the mortality increases with age more rapidly in the Mediterranean than among troops serving at home.

III.—On the Health of the Troops serving in British America.

Section I.

Sickness and Mortality.

I. Bermuda.

Bermuda.

The force employed in the Bermudas in the beginning of 1859 consisted of Artillery and Engineers and the 26th Regiment. In the middle of October the 39th Regiment arrived from Canada, and the 26th embarked for England.

The average strength of the troops during the year was 1,074; among whom 577 admissions into hospital and 12 deaths occurred, being in the ratio of 537 and 11·16 per 1,000; but in addition to the deaths in the islands, three occurred among invalids sent home to England, which raise the mortality to 13·95 per 1,000.

These results show a remarkable diminution, both in the sickness and mortality, compared with the average of the ten years 1837-46, when the ratio of admissions was 1,334, and that of the deaths, 33·8 per 1,000. But during that period one of those severe epidemics of yellow fever prevailed, to which the Bermudas are occasionally subject. If, however, the year 1843, in which it occurred, be deducted, the average of the remaining nine years will give a proportion of 1,148 admissions and 20·57 deaths per 1,000 of the strength; so that, during the year 1859, the sickness has scarcely reached one-half, and the mortality very slightly exceeded two-thirds of that average.

This fortunate result was, probably, in some degree, owing to a precaution adopted during the summer months. As the barracks were greatly overcrowded when the hot weather set in, about one-half of the force was placed under canvas, and kept there till the end of the season.

The following table, compiled from Abstract No. VII of Appendix, shows the admissions into hospital and deaths, in 1859, by the different classes of diseases:—

Bermuda.

	Strength, 1,074.				Annual Ratio per 1,000.			
		Deaths.			1859.		1837-46.	
	Admissions.	In the Bermudas.	Of Invalids.	Total.	Admissions.	Deaths.	Admissions.	Deaths.
Class I.								
1. Miasmatic diseases ..	121	2	..	2	112·7	1·86	610·6	18·41
2. Enthetic „ ..	69	..	..	..	64·3	..	80·2	·09
3. Dietic „ ..	..	..	..	..	..	..	4·4	·09
4. Parasitic „ ..	6	..	..	..	5·6	..	·4	..
Class II.								
1. Diathetic diseases ..	3	..	..	..	2·8	..	2·3	..
2. Tubercular „ ..	6	3	3	6	5·6	5·58	17·2	6·24
Class III. Diseases of the—								
1. Nervous system ..	25	3	..	3	23·3	2·79	15·7	1·16
2. Circulatory „ ..	4	..	..	..	3·7	..	4·3	·53
3. Respiratory „ ..	57	..	..	..	53·1	..	121·1	3·11
4. Digestive „ ..	76	1	..	1	70·7	·93	72·3	1·07
5. Urinary „ ..	1	..	..	..	·9	..	2·4	·09
6. Reproductive „ ..	2	..	..	..	1·8	..	·2	..
7. Locomotive „ ..	5	..	..	..	4·7	..	·7	..
8. Integumentary „ ..	124	..	..	..	115·5	..	159·8	·27
Class IV.								
4. Diseases of Nutrition ..	1	..	..	..	·9	..	3·5	·09
Class V.								
1. Accidents	72	1	..	1	67·0	·93	77·3	1·77
4. Suicide	..	2	..	2	..	1·86	..	·44
5. Execution	..	..	..	..	..	..	..	·09
6. Corporal Punishment ..	1	..	..	..	·9	..	5·6	..
Diseases not specified ..	4	..	..	..	3·7	..	9·	·34
Total	577	12	3	15	537·2	13·95	1187·	33·79

An examination of this table shows a very great reduction in the admissions by miasmatic diseases and diseases of the respiratory and integumentary systems, while there has been an increase in those of the nervous system. The diminished rate of mortality has also been chiefly in the miasmatic diseases and those of the respiratory organs, although it is manifest in a less degree in all the orders except diseases of the brain and suicide. Compared with the Infantry serving at home the most striking difference is in the enthetic diseases (venereal), the relative proportions being 64 and 399 per 1,000. Diseases of the respiratory organs are little more than half as prevalent in the Bermudas, but those of the digestive organs furnish more than double the proportion of admissions.

When the force employed is so small as in the Bermudas considerable fluctuations must be expected in the results, and it is only from the returns of a series of years that correct deductions can be drawn. It does not appear necessary, therefore, to enter upon the same minute examination of the various groups of diseases as in the Mediterranean. The very great decrease, however, in the amount of admissions and deaths by miasmatic diseases seems to merit further remark. *Bermuda.*

In comparing the prevalence of these diseases during 1859 with the previous average, we shall omit the returns of 1843, as being exceptional on account of the severe epidemic of yellow fever which cut off above one-sixth of the troops serving at St. George's. Subdividing the miasmatic diseases into the same groups as in the Mediterranean report, the ratio of admissions and deaths in 1859, and the nine years, 1837-46, exclusive of 1843, have been as follows:—

			Annual ratio per 1,000.			
			1859.		Average of 9 years.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eruptive Fevers ..	..	..	..	..	·6	..
Paroxysmal „ ..	2	..	1·8	..	2·9	·10
Continued „ ..	11	2	10·2	1·86	86·3	2·32
Dysentery, Diarrhœa, and Cholera	54	..	50·3	..	250·1	2·42
Sore Throat	4	..	3·7	..	8·5	..
Ophthalmia	32	..	29·8	..	162·9	..
Rheumatism	18	..	16·8	..	42·5	..

A glance at this statement shows, that while there has been a reduction in all the groups of diseases it has been much greater in dysentery, diarrhœa, &c., than in any other, the proportion of admissions by them in 1859 being only one-fifth of the average of the previous non-epidemic years.

The low rate of admissions by continued fevers is also worthy of remark, being less than an eighth of the former average, and only one-third of that among infantry serving at home. The amount of ophthalmia has also been very

Bermuda. small, but, small as it is, two-thirds of the cases occurred during the last two months and a-half of the year, in the 39th Regiment, which had suffered considerably from that disease in Canada.

II. Nova Scotia and New Brunswick.

Nova Scotia, &c. The force employed in Nova Scotia and New Brunswick consisted of Royal Artillery, Royal Engineers, the 62nd and the 63rd Regiments. The average strength was 1,798; the admissions into hospital amounted to 1,003, and the deaths within the limits of the command to 11, the former being in the ratio of 558, and the latter of 6·12 per 1,000 of mean strength. But to these must be added the deaths of two invalids sent to England, which raise the mortality to 7·23 per 1,000. Compared with the results of the ten years 1837-46, these ratios show a marked improvement in the health of the troops, the admissions being 342, and the deaths 8·77 per 1,000 less than formerly. Even in comparison with the Infantry serving at home, this rate of mortality is very favourable, and it is a fraction lower than that of the civil population in the healthiest districts of England, which, if the ages were distributed in the same proportions as amongst the troops in Nova Scotia, would be at the rate of 7·57 per 1,000.

The diminished mortality may be to a small extent owing to the proportion of young men serving in the command having been greater in 1859 than during the previous period. In the returns of ages for the ten years 1837-46, the regiments serving in Nova Scotia are mixed up with those in Canada, and it is impossible, therefore, to calculate the exact amount to which this has affected the results.

The diseases by which the admissions into hospital and deaths have been occasioned are given in detail in Abstract No. VII of Appendix, from which the following summary has been prepared:—

	Strength 1,798.				Annual Ratio per 1,000.			
		Deaths.			1859.		1837–46.	
	Admissions.	In Nova Scotia.	Of Invalids.	Total.	Admissions.	Deaths.	Admissions.	Deaths.
Class I.								
1. Miasmatic diseases ..	137	..	..	..	76·2	..	280·4	2·65
2. Enthetic „ ..	202	..	..	..	112·3	..	98·3	·04
3. Dietic „ ..	..	1	..	1	..	·56	·2	·19
4. Parasitic „ ..	7	..	..	..	3·9	..	·2	..
Class II.								
1. Diathetic diseases ..	6	..	..	..	3·3	..	4·	·07
2. Tubercular „ ..	31	5	2	7	17·2	3·88	10·7	4·89
Class III. Diseases of the—								
1. Nervous system ..	26	..	..	..	14·5	..	18·7	1·94
2. Circulatory „ ..	6	1	..	1	3·3	·56	2·7	·33
3. Respiratory „ ..	158	2	..	2	87·9	1·11	172·9	2·90
4. Digestive „ ..	71	1	..	1	39·5	·56	52·4	·93
5. Urinary „ ..	3	..	..	..	1·6	..	2·5	·04
6. Reproductive „ ..	..	..	..	..	..	..	·8	..
7. Locomotive „ ..	3	..	..	..	1·6	..	1·	..
8. Integumentary „ ..	143	..	..	..	79·5	..	125·2	·19
Class IV.								
4. Diseases of Nutrition ..	1	..	..	..	·6	..	·1	·04
Class V.								
1. Accidents	186	1	..	1	103·4	·56	119·1	1·20
3. Homicide	..	..	..	..	..	..	..	·04
4. Suicide	..	..	..	..	..	..	..	·48
6. Corporal Punishment ..	2	..	..	..	1·1	..	6·6	..
Diseases not specified ..	21	..	..	..	11·9	..	4·5	·07
Total	1003	11	2	13	557·8	7·23	900·3	16·

This table shows the great reduction in the admissions into hospital to have been chiefly in the miasmatic diseases and those of the respiratory and integumentary systems. The diminished mortality will be found principally in the miasmatic and tubercular diseases, and also, though to a less extent, in those of the nervous and respiratory systems. There has been an increase in the admissions by tubercular diseases, and also to a trifling extent in venereal.

We shall now proceed to offer a few remarks on some of the leading classes of diseases.

I. Miasmatic Diseases.—The admissions into hospital by these have amounted to 76·2 per 1,000, and during the period under review there have been no deaths. In accordance with the practice adopted in the previous portions of this

Nova Scotia, &c. report, the principal diseases composing this order have been subdivided into the following groups :—

	1859.		Annual ratio per 1,000.			
			1859.		1837–46.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eruptive fevers ..	1	..	·55	..	2·35	·04
Paroxysmal „ ..	1	..	·55	..	15·93	·11
Continued „ ..	11	..	6·12	..	41·18	·97
Dysentery, Diarrhœa, and Cholera	36	..	20·02	..	71·89	1·12
Sore Throat	31	..	17·24	..	24·13	·07
Ophthalmia	20	..	11·12	..	81·21	..
Rheumatism	36	..	20·02	..	31·39	·04

From this it appears, that the reduction in the admissions has extended to all the diseases comprised in these groups, although to a less extent as regards sore throat than any of the others. Paroxysmal fevers have almost completely disappeared, probably owing to the country being better drained. The diminution in the amount of continued fevers is perhaps as remarkable as anything in this table, as the barracks are reported by the Medical Officers to be much overcrowded, and the town of Halifax is represented as being innocent of any of those sanitary improvements in the way of drains and sewers which have been considered necessary in other places for the preservation and amelioration of the health of the public. During the summer months, a large detachment has been stationed for rifle-practice on the shores of the harbour, about eight miles from Halifax, where the men have always been very healthy, and this has relieved to a considerable extent the overcrowding of the barracks in the hot weather.

In the beginning of the year, scarlet fever and diphtheria, and in the last quarter scarlet fever and measles prevailed to a great extent among the civil population, and were very fatal to the children, but the troops fortunately escaped. Among the children of the soldiers a considerable number of cases of scarlet fever and measles occurred, but only one of the former terminated fatally.

Tubercular Diseases have furnished a larger proportion of admissions than formerly, but the mortality has been 1 per 1,000 under the previous average. This has not been attributable to any greater amount of invaliding, as the number discharged the service for consumption in 1859, was below the usual proportion. It may perhaps be an accidental variation, arising from the limited force. Viewed in connection with

the diminished mortality by these diseases among the troops in the Mediterranean, it may be worthy of remark, that while, as before stated, the force there consisted chiefly of newly raised second battalions, that in Nova Scotia was composed entirely of single battalion regiments, and, consequently, had in it a very much larger proportion of old soldiers, men who had been for a considerably longer period exposed to any peculiar influence which may affect the health of the military. *Nova Scotia, &c.*

Diseases of the Nervous System have given rise to fewer admissions than formerly, and to no deaths; but we regret to state, that of 36 cases, no fewer than 11 have been *delirium tremens*, being in the proportion of 6·12 per 1,000 of the strength. This is a small fraction lower than the previous average, which was 6·9, but still affords lamentable proof of the extent of intemperance among the troops in this colony.

Diseases of the Respiratory System have been only half as prevalent as formerly, the difference being chiefly in the amount of bronchitis.

Violent Deaths.—Only one fatal case appears in this class; it resulted from a severe wound of the knee joint. No case of suicide has been recorded.

Corporal Punishment was only twice inflicted during the year, being in the ratio of 1·1 per 1,000 of the strength. We are disposed to attribute the low ratio, compared with either that among the Infantry at home or in the Mediterranean, to the much larger proportion of old soldiers in the force, who are not only themselves less likely to commit offences for which this punishment is inflicted, but also exert a wholesome influence, in preventing their commission by the young and inexperienced soldier.

III. Canada.

In the beginning of 1859 the force in Canada consisted of Royal Artillery, Royal Engineers, the 1st Battalion 17th Regiment, the 39th Regiment, and the Royal Canadian Rifle Corps. In the end of September the 39th Regiment left the command for the Bermudas, and was not replaced by another. The average strength of the troops during the year was 2,782 among whom 1,516 admissions into Hospital, and 27 deaths occurred, being in the ratio of 545 and 9·70 per 1,000. Two deaths, however, among invalids sent to England, must be added, which raise the proportion to 10·42 per 1,000 of mean strength. *Canada.*

As compared with the average of the ten years 1837-46,

Canada.

this shows a great decrease both in the admissions and deaths, the proportions during that period having been 982, and 17·42 per 1,000. But even this diminution is rather under stated, as, in consequence of the Canadian Rifles being composed almost exclusively of soldiers above thirty, the ages of the men now serving in Canada are higher than during the former period. We have already stated that it has been found impossible accurately to separate the returns of the ages of men serving in Nova Scotia and New Brunswick during the period 1836-47 from those in Canada, but if the results of the two Commands be combined, and the mortality calculated, supposing the proportion of men at different ages to have been as in the two Commands in 1859, the ratio will be found to be 17·83 for the former, and 9·24 for the latter period.

The diseases by which the admissions into hospital, and the deaths have been caused, are detailed in abstract No. VII of Appendix, of which the following table is a summary:—

	Strength, 2,782.				Annual ratio per 1,000.			
		Deaths.			1859.		1837–46.	
	Admissions.	In Canada.	Of Invalids.	Total.	Admissions.	Deaths.	Admissions.	Deaths.
Class I.								
1. Miasmatic diseases ..	370	6	..	6	133·	2·15	348·2	3·39
2. Enthetic „ ..	284	..	..	..	102·1	..	117·3	·02
3. Dietic „ ..	31	..	..	..	11·1	..	2·1	·25
4. Parasitic „ ..	4	..	..	..	1·4	..	·3	..
Class II.								
1. Diathetic diseases ..	13	..	..	..	4·7	..	3·6	·09
2. Tubercular „ ..	24	5	..	5	8·6	1·79	9·6	4·89
Class III. Diseases of the—								
1. Nervous system ..	56	4	..	4	20·1	1·44	20·	1·73
2. Circulatory „ ..	12	1	2	3	4·3	1.08	2·7	·45
3. Respiratory „ ..	189	7	..	7	67·9	2·52	149·1	2·80
4. Digestive „ ..	92	1	..	1	33·1	·36	58·5	·85
5. Urinary „ ..	6	..	..	..	2·1	..	1·3	·03
6. Reproductive „ ..	1	..	..	..	·3	..	·8	..
7. Locomotive „ ..	7	..	..	..	2·5	..	1·	..
8. Integumentary „ ..	194	..	..	..	69·7	..	121·9	·17
Class IV.								
4. Diseases of Nutrition ..	3	..	..	..	1·3	..	·4	·01
Class V.								
1. Accidents	221	2	..	2	79·4	·72	134·2	2·09
2. Battle	..	..	..	..	..	..	..	·16
3. Homicide	..	..	..	..	..	..	..	·01
4. Suicide	..	1	..	1	..	·36	..	·22
6. Corporal Punishment ..	3	..	..	..	1·3	..	8·7	..
Diseases not specified ..	6	..	..	..	2·1	..	2·	·26

This table shows the reduction in the admissions, compared with the previous period, to have been chiefly in miasmatic diseases, and those of the respiratory, digestive, and integumentary systems. There have also been fewer accidents. The lower rate of mortality has been principally shown in tubercular diseases, and the deaths from accidents and violence. *Canada.*

We shall now offer a few remarks on the principal classes of diseases.

I. Miasmatic Diseases.

		1859.	1837–46.
Annual ratio per 1,000	Admitted	133·	348·2
	Died	2·15	3·39

Subdividing these as before into smaller groups, we obtain the following results :—

			Annual ratio per 1,000.			
			1859.		1837–46.	
	Admitted.	Died	Admitted.	Died.	Admitted.	Died.
Eruptive fevers	2	..	·7	..	2·9	·22
Paroxysmal „	15	..	6·5	..	30·2	·25
Continued „	64	4	23·	1·44	72·3	1·88
Dysentery, Diarrhœa, and Cholera	78	..	28·	..	99·1	·66
Sore Throat and Influenza..	32	..	11·5	..	20·6	·09
Ophthalmia..	98	..	35·2	..	79·4	..
Rheumatism	75	1	26·9	·36	39·8	·05

Thus it appears that there has been a reduction in all the groups. Paroxysmal fevers have nearly disappeared, and continued fevers have fallen a little below the average among Infantry in the United Kingdom.

Canada.

Ophthalmia is scarcely half as prevalent as formerly, but it may be remarked, that the ratio would have been much lower, had it not been for the number of cases in the 39th Regiment, in which 60 out of the 98 admissions occurred.

The mortality by continued fevers is not much below the former average, but two out of the four deaths can scarcely be attributed to the climate of Canada, having occurred in men who had just arrived from England, and who are stated to have come out in a freight-ship in which the accommodation was not good. One of the men arrived labouring under the premonitory symptoms of fever, and they both died within 26 days of their arrival in the colony.

Enthetic Diseases.—There has been a slight decrease in the admissions by venereal, the proportion having been 102 per 1,000, while the previous average was 117. But this difference has arisen from a difference in the constitution of the force. The Canadian Rifle Regiment having been raised and kept up by volunteers from other corps who have completed at least 12 years' service, has in its ranks a very much larger proportion of married men than is usual in the Army. In 1859, the admissions by these diseases in the Rifle Corps were in the ratio of 37 per 1,000 of the strength, and among the rest of the troops in Canada, 148 per 1,000 ; so that but for the altered constitution of the force, the returns would have shown an increase instead of a diminution.

Dietic Diseases are considerably above the previous average, but this is probably owing to the introduction into the returns of the term drunkenness (*ebriositas*). Thirty cases were entered under this head in 1859, which would probably have appeared as fever, or perhaps as "under observation," in the old returns.

Tubercular Diseases.—The proportion of admissions by these has been nearly the same, but that of the deaths less than half as high as formerly. The number, however, is too small to justify the deduction that this may not be the effect of accidental irregularity.

Diseases of the Nervous System have furnished almost exactly the same results as formerly. Of 56 admissions 32 were caused by *delirium tremens*, being in the proportion of 11·5 per 1,000 of the strength, while the average of the former period amounted to 9·44. This increase, however, has been in the Canadian Rifles, among whom 18 admissions occurred, or in the proportion of 16·79 per 1,000 of the strength, and 23 of the 30 cases of drunken-

ness reported under "Dietic Diseases" occurred also in it. *Canada.* Among the rest of the troops, the admissions by *delirium tremens* were in the ratio of 8·19 per 1,000, or rather under the previous amount.

Diseases of the Respiratory Organs have only been half as prevalent as formerly, but the mortality remains nearly the same. There has also been a considerable reduction in diseases of the Digestive Organs, which may perhaps have to some extent been attributable to the absence of that great heat which usually prevails during summer in Canada, and from which there was a marked exemption in 1859.

The remaining classes of diseases seem hardly to require comment.

Corporal Punishment has been very rarely resorted to in 1859, only three admissions from it appearing in the returns, and none of them being in the Canadian Rifle Regiment.

IV. Newfoundland.

The force in Newfoundland, in 1859, consisted of the *Newfound-* Royal Newfoundland Companies, a corps composed, like the *land.* Canadian Rifles, almost entirely of volunteers from Regiments of the Line, with not less than twelve years' service.

The average strength of these Companies during the year was 209, the admissions into hospital were 278, and there was only one death. These figures give the annual ratio of admissions at 1,330, and of deaths 4·8 per 1,000. During the ten years, 1837-46, the proportions were 781, and 11·5 per 1,000. There has consequently been a considerable increase in the admissions and diminution in the deaths in 1859, but the force employed is so small that the observations of a series of years would be required to furnish a correct average.

The following table, compiled from Abstract No. VII of Appendix, shows the classes of diseases by which the sickness and mortality have been caused:—

Newfoundland.

	Strength, 209.				Annual ratio per 1,000.			
		Deaths.			1859.		1837–46.	
	Admissions.	In Newfoundland	Of Invalids.	Total.	Admissions.	Deaths.	Admissions.	Deaths.
Class I.								
1. Miasmatic diseases ..	91	..	..	..	435·4	..	249·	·54
2. Enthetic „ ..	7	..	..	..	33·5	..	17·	..
3. Dietic „ ..	1	..	..	..	4·8	..	..	..
4. Parasitic „ ..	1	..	..	..	4·8	..	·3	..
Class II.								
1. Diathetic diseases ..	4	..	..	..	19·2	..	1·3	·27
2. Tubercular „ ..	5	..	..	..	24·	..	10·2	3·48
Class III. Diseases of the—								
1. Nervous system ..	14	1	..	1	67·	4·8	14·2	2·15
2. Circulatory „ ..	17	..	..	..	81·3	..	14·4	·54
3. Respiratory „ ..	59	..	..	..	282·3	..	190·2	·80
4. Digestive „ ..	15	..	..	..	71·7	..	56·1	1·61
5. Urinary „ ..	..	..	..	..	..	..	·5	..
6. Reproductive „ ..	..	..	..	..	..	..	·3	..
7. Locomotive „ ..	2	..	..	..	9·6	..	..	..
8. Integumentary „ ..	16	..	..	..	76·4	..	77·3	..
Class IV.								
4. Diseases of Nutrition ..	..	..	..	..	..	..	1·1	·27
Class V.								
1. Accidents	39	..	..	..	186·6	..	112·9	1·61
4. Suicide	..	..	..	..	..	..	..	·27
6. Corporal Punishment ..	3	..	..	..	14·3	..	11·8	..
Diseases not stated.. ..	4	..	..	..	19·2	..	24·4	..
Total	278	1	..	1	1330·1	4·8	781·	11·54

It will be observed that there has been an increase in the admissions by all classes of diseases, except those of the integumentary system. The only fatal case was one of *delirium tremens.*

It appears hardly necessary to enter upon a detailed consideration of the various classes of diseases where the numbers are so small. It may be sufficient to observe, with regard to MIASMATIC DISEASES, that although the admissions by these have been nearly double the former average, the increase has been attributable almost entirely to rheumatism. Of 91 admissions by this class, 35 were cases of that disease, and the Medical Officer remarks that many of them were believed to have come into hospital with a view to being discharged the service as invalids. Of the

remaining 56 cases, 12 were sore throat, 10 diarrhœa, and 18 influenza, which prevailed as an epidemic at St. John's, in December. *Newfoundland.*

Owing to the high proportion of married men in the corps, the admissions for venereal have been very few, amounting only to 33 per 1,000 of the strength, or rather lower than in the Canadian Rifles, among whom, as we have already pointed out, the same cause of exemption is in operation.

V. British Columbia.

This station was for the first time occupied by the troops in April, 1859, two companies of the Royal Engineers having been sent to found the capital of the colony. A description of the station, by Assistant-Surgeon Seddall, who went out in medical charge of the troops, will be found at page 222 of this volume. *British Columbia.*

The strength of the troops was 150, and the admissions into hospital, from the 19th of April to the 31st of December, were 85. The only death was from drowning, and the admissions, in the annual ratio of 814 per 1,000 of strength, were the result of the following causes:—

18 wounds and injuries; 21 boils and ulcers; 14 catarrh; 12 venereal; 8 diarrhœa; 5 sore throat; 3 chronic rheumatism; 1 ophthalmia; 1 delirium tremens; 1 amaurosis; and 1 indigestion. These facts show the detachment to have enjoyed excellent health, to which the constant occupation of the men, the good quality of the supplies, and the judicious nature of their clothing, no doubt materially contributed. One-fifth of all the admissions were from accidents mostly connected with the nature of the men's employment.

Section II.

On the extent of Invaliding.

British America.

Invaliding.

The numbers finally discharged the service at Chatham of invalids from British America, were, from Bermuda, 5, or 4·65 per 1,000 of the strength; from Nova Scotia and New Brunswick, 13, or 7·23 per 1,000; Canada, 22, or 7·91 per 1,000; and Newfoundland, 9, or 43·01 per 1,000. The very high ratio from the last station arises, of course, from the nature of the force employed there, the Newfoundland Companies being recruited by volunteers who have already served in the army for a period of not less than twelve years.

The disabilities for which these men were discharged were as follows:—

	Bermuda.	Nova Scotia and New Brunswick.	Canada.	Newfoundland.
Cachexies and Scrofula	..	1	..	..
Weakly Constitution	1	1	1	2
Dysentery and Hepatic diseases	..	..	1	..
Eye diseases	1	2	2	..
Wounds (not received in action)	..	1	2	..
Contractions	..	1	..	..
Hernia	..	1	2	..
Mental disease	..	1	..	..
Epilepsy	..	1	..	..
Pulmonary disease	1	3	7	2
Cardiac „	..	1	2	1
Rheumatism and Chronic Pains	..	..	1	1
Stricture and Urinary diseases	..	..	3	..
Venereal	1	..	..	..
Worn out	1	..	..	2
Ulcers and Varices	..	..	1	1
Total	5	13	22	9
Ratio per 1,000 of strength	4·65	7·23	7·91	43·01
„ „ 1837–46	12·3	14·1	15·2	48·3

This table shows the proportion discharged as invalids to have been only half the previous average, except from Newfoundland. The disabilities in which the reduction has been most marked are pulmonary and ocular diseases. Not only is the proportion of the former considerably below the previous average, but it is so small that it could not possibly account for the reduction which we have already shown to have taken place in the mortality by consumption in these Commands.

Section III.

Mean Daily Sick.

The average number constantly non-effective from sickness during the year, was, in Bermuda, 37·71; in Nova Scotia and New Brunswick, 40·25; in Canada, 78·64, and in Newfoundland, 7·75. From these numbers, combined with the information contained in the preceding portion of the report, we deduce the following results:— *British America.* Mean sick.

		Ratio per 1,000 constantly sick.	Average sick time to each Soldier.	Average duration of each case.
			Days.	Days.
Bermuda ..	1859 .. .	35·11	12·82	23·75
	1838–46	55·8	20·4	17·1
Nova Scotia and New Brunswick	1859	22·39	8·18	14·65
	1838–46	34·8	12·7	14·1
Canada ..	1859	28·27	10·32	18·93
	1838–46	39·1	14·3	14·5
Newfoundland..	1859	37·10	13·54	10·18

It will be observed that while the ratio per 1,000 constantly sick is highest, the average duration of disease is lowest in Newfoundland, a circumstance which appears fully to bear out the remark of the surgeon, that many of the men came into hospital with a view to obtain their discharge from the service rather than on account of having any serious disease. In the other Commands there has been a well-marked reduction in the proportion constantly sick and the average sick-time to each soldier; but in Bermuda and Canada this has been attended by an increase in the duration of the cases under treatment.

Section IV.

Influence of Age on the Mortality.

British America.

Influence of age.

A detailed statement will be found in Abstract No. VIII of Appendix, showing the ages, in quinquennial periods, of the men serving in each of the regiments in British America, and the deaths at each age, of which the following is a summary:—

	Ratio of Deaths per 1,000 of Strength at each Age.						
	Under 20.	20—24.	25—29.	30—34.	35—39.	40 and upwards.	Total.
Bermuda	..	10	5·35	24·15	48·08	..	16·51
Nova Scotia, &c. ..	10·20	5·06	2·51	36·15	..	..	7·80
Canada	8·85	8·94	11·54	4·42	15·27	10·38	10·07
Newfoundland ..	..	..	..	..	13·51	..	5·35
Total ..	8·89	7·44	6·99	15·05	39·44	7·71	10·27
Canada, Nova Scotia, and New Brunswick, 1839–46	14·8	13·1	17·7	19·2	20·3	35·6	..
Infantry at home, 1859	5·82	7·21	7·80	11·97	18·31	15·50	..

From this table it will be seen that, under thirty years of age, the rate of mortality does not differ greatly from that among infantry serving at home, but above that age it increases more rapidly in British America, a result in accordance with previous experience. The numbers at each age, in the different Commands, are too few to justify any comments on the differences which are shown in the proportion of deaths.

IV. On the Health of the Troops serving in the West Indies.

Section I.

Sickness and Mortality.

I. Windward and Leeward Command.

Windward and Leeward Command.

The force employed during the year consisted of Royal Artillery, a detachment of the 41st Regiment the head-quarters of which were serving in Jamaica, the 49th, the 3rd West India Regiment, and the Military Labourers. As the last two corps are composed of negroes, we shall notice the details respecting them separately from those of the white troops.

White Troops.

The strength of the white troops in the Command averaged 1,215, among whom 1,371 admissions into hospital and 24 deaths occurred, being in the ratio of 1,128 and 19·75 per 1,000 of the force. No deaths occurred among the invalids on the passage home, or at Chatham. These ratios show a great reduction, both in the sickness and the mortality, compared with the results of the ten years 1837-46, when they averaged 1,936 and 69·54 per 1,000 annually. The diseases by which the admissions and deaths were caused will be found detailed in Abstract No. IX of Appendix, of which the following table is a summary, with the addition of the results of the previous period:—

Windward and Leeward Command.

Diseases.	1859. Strength, 1,215		1859. Ratio per 1,000.		1837–46. Ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Class I.						
1. Miasmatic diseases ..	613	12	504·5	9·88	1271·5	53·81
2. Enthetic „ ..	144	..	118·5	..	62·5	·06
3. Dietic „ ..	..	1	..	·82	2·4	·06
4. Parasitic „ ..	4	..	3·3	..	1·4	..
Class II.						
1. Diathetic diseases ..	5	..	4·1	..	5·8	·73
2. Tubercular „ ..	9	1	7·4	·82	16·	5·22
Class III. Diseases of the—						
1. Nervous system ..	53	5	43·6	4·12	34·	3·88
2. Circulatory „ ..	1	2	·8	1·65	1·7	·14
3. Respiratory „ ..	50	1	41·1	·82	106·2	3·33
4. Digestive „ ..	97	..	80·	..	117·4	1·65
5. Urinary „ ..	2	..	1·6	..	2·5	·03
6. Reproductive „ ..	2	..	1·6	..	1·3	..
7. Locomotive „ ..	3	..	2·5	..	·6	..
8. Integumentary „ ..	238	..	195·9	..	191·1	·20
Class IV.						
4. Diseases of Nutrition ..	6	..	4·9	..	·6	·17
Class V.						
1. Accidents	119	1	98·0	·82	106·	·23
4. Suicide	1	1	·8	·82	..	..
6. Corporal punishment ..	3	..	2·5	..	11·9	..
Diseases not stated.. ..	21	..	17·3	..	2·9	·03
Total	1,371	24	1128·4	19·75	1935·8	69·54

This table shows that the great reduction, both in sickness and mortality, has occurred in the miasmatic diseases, but there is also a considerable diminution in the deaths by tubercular diseases. The only class in which there has been a marked increase has been in that of venereal affections, the admissions by which have nearly doubled.

Miasmatic Diseases.

	Ratio per 1,000 of strength.	
	1859.	1837–46.
Admitted	504·5	1271·5
Died	9·88	53·81

In these diseases a reduction of three-fifths has taken place in the admissions, and of four-fifths in the deaths. Subdividing the diseases into groups, as in the preceding portions of this report, the following results are obtained :— *Windward and Leeward Command.*

	1859.		Annual ratio per 1,000.			
			1859.		1837–46.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eruptive fevers	3	..	2·5	..	·7	·03
Paroxysmal „	233	11	191·8	9·05	553·8	34·66
Continued „	145	1	119·3	·82	159·	5·24
Dysentery, Diarrhœa, and Cholera	31	..	25·5	..	326·5	13·65
Sore Throat	14	..	11·5	..	7·1	..
Ophthalmia	142	..	116·9	..	169·4	·03
Rheumatism	43	..	35·4	..	52·8	·17

From this it appears that the improvement has been most striking in paroxysmal fevers, and dysentery, diarrhœa, and cholera, and to a less degree in continued fevers. Great, however, as has been the diminution in the mortality from paroxysmal fevers, it would have been still more marked but for an epidemic of yellow fever at Trinidad, which broke out in September, 1858, and continued to prevail till the end of February, 1859. Although it commenced previous to the period included in this report, we shall briefly notice its progress from the date of its outbreak.

Remittent fever had been very prevalent in Trinidad during the third quarter of 1858, but about the middle of September two undoubted cases of yellow fever occurred in St. James's Barracks. On the 22nd of that month the troops were encamped on the Savannah, about a mile to the eastward of the town, and the disease ceased. On the 29th of November, after the barracks had been thoroughly cleansed and whitewashed, they were re-occupied by the troops. On the 1st of December, a case of yellow fever was admitted into hospital; another followed on the 21st, and a third on the 28th. As the disease continued to spread, the troops were re-encamped on the 10th of January, and although several cases occurred subsequently they could all be clearly traced to the barracks. The troops remained encamped till the 3rd of May, but no cases of the disease were admitted after the end of February. During the progress of the epidemic, 28 cases of yellow fever were returned as

Windward and Leeward Command.

admitted into hospital, and of these 24 died. The disease was clearly of local origin. The Medical Officers attributed it chiefly to the very unhealthy situation of the barracks, but the drains are also stated to be of the most faulty description, and scarcely ever properly flushed except during the heavy rains. The yellow fever did not spread over the island, but was confined entirely to St. James's.

Of the 24 deaths among the troops, 10 occurred in 1859. If these be deducted from the mortality already stated, the ratio for the whole year would only amount to 11·52 per 1,000 from all causes, and from paroxysmal fever only one death would have appeared in the returns.

Dysentery, Diarrhœa, and Cholera show a still more striking reduction than even paroxysmal fevers, the admissions having fallen from 326·5 to 25·5 per 1,000 There is also a very important difference in the nature of the cases, for in 1859 only one-sixth of them were dysentery, while formerly the proportion was nearly one-half.

Ophthalmia, though one-third less prevalent than formerly, is still a source of considerable inefficiency, having amounted to 119 per 1,000 of the strength.

Enthetic Diseases, as already observed, have furnished nearly twice the former proportion of admissions, but no explanation of the fact is given in the reports of the Medical Officers.

Tubercular Diseases were only one-half as prevalent as during the previous period, and occasioned but one death in 1859.

Diseases of the Nervous System have been both more prevalent and more fatal than formerly, and, we regret to say, bear strong testimony to the habits of intemperance among the troops. In a total of 51 admissions and 5 deaths *delirium tremens* has been the cause of 21 of the former and 4 of the latter. If to these be added a death from apoplexy, caused by drinking a quantity of spirits, and another by suicide whilst intoxicated, the deaths attributable directly to intemperance will amount to 4·94 per 1,000 of the strength, being one-fourth of all the deaths, or above two-fifths exclusive of those from epidemic yellow fever.

Corporal Punishment was only inflicted in three instances during the year, being in the ratio of 2·5 per 1,000 of the strength, or less than one-fourth of the proportion during the ten years 1837-46.

As it was found in former investigations that the sickness and mortality varied considerably in the different islands in this command, the following table is submitted, showing the

proportion of admissions and deaths by the principal classes of diseases:— *Windward and Leeward Command.*

	Annual Ratio per 1,000 of Strength in 1859.							
	Barbadoes.		St. Lucia.		Trinidad.		British Guiana.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Class I.								
1. Miasmatic diseases ..	382·6	..	604·2	..	931·6	63·17	650·4	
2. Enthetic „ ..	148·9	..	20·8	..	84·2	..	62·9	..
3. Dietic „ ..	..	1·27	..	..	..	..	..	..
4. Parasitic „ ..	3·8	..	10·4	..	..	..	..	..
								..
Class II.								
1. Diathetic diseases ..	3·8	..	10·4	..	5·3	..	..	
2. Tubercular „ ..	11·4	1·27	..	..	..	..	..	..
								..
Class III. Diseases of the—								
1. Nervous system ..	43·2	..	31·3	..	68·4	21·1	21·	
2. Circulatory „ ..	1·3	2·55	..	..	..	..	..	6·99
3. Respiratory „ ..	49·6	1·27	52·1	..	10·5	..	28·	..
4. Digestive „ ..	63·6	..	104·2	..	136·8	..	76·9	..
5. Urinary „ ..	2·6	..	..	..	..	..	..	..
6. Reproductive „ ..	2·6	..	..	..	..	..	..	..
7. Locomotive „ ..	3·8	..	..	..	..	..	..	..
8. Integumentary „ ..	224·	..	218·7	..	131·6	..	111·9	..
								..
Class IV.								
4. Diseases of Nutrition ..	7·6	..	..	..	..	..	..	
								..
Class V.								
1. Accidents	94·1	..	114·6	..	73·7	..	139·9	
4. Suicide	..	..	..	..	5·3	5·26	..	6·99
6. Corporal punishment ..	3·8	..	..	..	..	..	..	..
								..
Diseases not stated.. ..	24·1	..	10·4	..	5·3	..	..	..
Total	1050·8	6·36	1177·1	..	1452·7	89·53	1091·	13·98
Average of 20 years, 1817–36	..	58·5	..	122·8	..	106·3	..	84·

Thus it will be seen that, with the exception of Trinidad, the mortality in all the islands has been very low; indeed, the ratio is lower than in any year during the twenty included in the previous report upon the West Indies; but it must not be forgotten that the numbers under observation are greatly reduced, and are much too small to afford a steady average. We deem it unnecessary, under these circumstances, to enter upon a detailed consideration of the results shown in this table, and would merely call attention to the comparative exemption enjoyed at Barbadoes from miasmatic diseases, the relative prevalence of these and diseases of the digestive system in the different islands, and the amount of venereal at Barbadoes

Windward and Leeward Command.

Black Troops.

The black troops employed in this command consisted of the 3rd West India Regiment and a corps of Military Labourers. The average strength in 1859 was 1,260, the admissions into hospital amounted to 1,276, and the deaths to 21, being in the ratio of 10·13 and 16·66 per 1,000 of the strength. Compared with the results of the 10 years 1837–46, these figures show an increase in the admissions into hospital, but a decrease in the deaths equal to one-half the previous average. The diseases by which the admissions and deaths have been caused are specified in Abstract No. X of Appendix and the classified results are given in the following table :—

	1859.				1837–46.	
	Strength 1,260.		Ratio per 1,000.		Ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Class I.						
1. Miasmatic diseases ..	377	8	299·2	6·35	326·4	11·79
2. Enthetic „ ..	242	..	192·1	..	47·6	·08
3. Dietic „ ..	..	..	..	..	·3	..
4. Parasitic „ ..	1	..	·8	..	1·4	·08
Class II.						
1. Diathetic diseases ..	14	..	11·1	..	4·4	·81
2. Tubercular „ ..	10	3	7·9	2·38	9·2	4·42
Class III. Diseases of the—						
1. Nervous system ..	19	1	15·1	·79	11·5	2·37
2. Circulatory „ ..	2	..	1·6	..	·6	·25
3. Respiratory „ ..	142	3	112·7	2·38	72·4	6·55
4. Digestive „ ..	58	2	46·	1·59	49·4	3·36
5. Urinary „ ..	1	1	·8	·79	2·1	·16
6. Reproductive „ ..	..	..	..	..	1·5	..
7. Locomotive „ ..	5	..	4·	..	·4	..
8. Integumentary „ ..	248	..	196·8	..	148·8	·98
Class IV.						
4. Diseases of Nutrition ..	2	..	1·6	..	·4	·25
Class V.						
1. Accidents	105	..	83·3	..	75·5	·98
3. Homicide	2	2	1·6	1·59	..	..
4. Suicide	..	1	..	·79	..	..
6. Corporal punishment ..	19	..	8·	..	15·	..
Diseases not stated ..	38	..	30·1	..	1·3	·08
Total	1,276	21	1012·7	16·66	765·2	32·16

Windward and Leeward Command.

This table shows that the increase in the admissions has been chiefly caused by venereal, from which the black troops formerly enjoyed a marked exemption, but the admissions by which in 1859 considerably exceeded the proportion among the white troops.

While there has been only a slight diminution in the prevalence of miasmatic diseases, the mortality by them has been little more than one-half the former average. But although the admissions during the two periods approximate, there has been a considerable change in the relative prevalence of some of the groups constituting this class, as will be seen by the following table, showing the ratio of admissions per 1,000 of the strength:—

	1859.	1837–46.
By Eruptive Fevers	2·4	6·8
Paroxysmal „	117·5	58·8
Continued „	34·1	73·8
Dysentery, Diarrhœa, and Cholera	14·6	56·4
Sore Throat	11·9	5·
Ophthalmia	24·6	19·
Rheumatism	88·7	96·5

From this it appears that there has been a considerable reduction in the admissions by dysentery, diarrhœa, &c., and that paroxysmal fevers have been much more prevalent than formerly, but that a nearly corresponding reduction has taken place in fevers of the continued type.

The deaths from tubercular diseases have been only one-third of the previous proportion, and there has been a similar decrease in those by diseases of the respiratory organs.

Of the violent deaths two are returned under the head of homicide. A corporal and a private of the 3rd West India Regiment were stabbed in their barrack-room by a man of the same regiment, whom they were removing to the guard-room.

Ten men underwent corporal punishment during the year, being in the ratio of 8 per 1,000 of the strength, or a little above half the previous average.

The relative influence of the climate of the different islands upon the health of the black troops is shown in the following table, compiled from Abstract No. X of Appendix.

Windward and Leeward Command.

	Annual Ratio per 1,000 of Strength.							
	Barbadoes.		St. Lucia.		Trinidad.		Br. Guiana.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Class I.								
1. Miasmatic diseases ..	245·4	6·64	213·6	..	274·5	19·6	471·8	..
2. Enthetic „ ..	246·7	..	58·3	9·7	68·6	..	142·9	..
3. Dietic „ ..	..	..	..	..	..	..	..	..
4. Parasitic „ ..	..	..	..	..	..	..	3·3	..
Class II.								
1. Diathetic diseases ..	1·3	..	29·1	..	9·8	..	29·9	..
2. Tubercular „ ..	7·9	2·65	..	..	9·8	9·8	10·	..
Class III. Diseases of the—								
1. Nervous system ..	16·	1·32	9·7	..	19·6	..	13·3	..
2. Circulatory „ ..	2·6	..	..	..	..	..	..	..
3. Respiratory „ ..	102·1	2·65	126·2	..	98·	..	139·6	3·32
4. Digestive „ ..	40·	1·32	48·5	..	58·8	9·8	56·5	..
5. Urinary „ ..	..	..	..	..	..	..	3·3	3·32
6. Reproductive „ ..	..	..	..	..	..	..	..	..
7. Locomotive „ ..	1·3	..	..	..	29·4	..	3·3	..
8. Integumentary „ ..	222·8	..	252·4	..	68·6	..	156·2	..
Class IV.								
4. Diseases of Nutrition ..	2·6	..	..	..	..	..	..	..
Class V.								
1. Accidents	80·9	..	135·9	..	58·8	..	79·7	..
3. Homicide	..	..	..	..	19·6	19·6	..	..
4. Suicide	..	1·32	..	..	..	..	..	..
6. Corporal punishment ..	7·9	..	19·5	..	..	..	6·6	..
Diseases not stated.. ..	38·5	..	29·1	..	49·	..	3·2	..
Total	1016·	15·9	1922·3	9·7	764·5	58·8	1119·6	6·64
Average of 20 years, 1817-36	..	46·	..	42·7	..	39·7	..	40·6

The same remark applies to the black as to the white troops, that, with the exception of Trinidad, the mortality has been lower than in any year from 1817 to 1836.

On comparing this table with the similar one given for the white troops, it will be observed that in all the islands diseases of the respiratory system have been much more prevalent, but those of the digestive organs less frequent among the blacks. At Barbadoes the latter do not seem to have enjoyed the same comparative exemption from miasmatic diseases as the whites, and at Demerara, especially, the proportion admitted by this class has been very much above the average. The force at all the stations, however, is too small to justify any very positive deductions.

II. Jamaica.

The force employed in the island consisted of Royal Artillery, the head-quarters of the 41st Regiment, and the 2nd West India Regiment. *Jamaica.*

I. White Troops.

The average strength of the white troops was 624, among whom 833 admissions into hospital and 9 deaths occurred; the former being in the ratio of 1,335, and the latter of 14·42 per 1,000 of the strength. Among the deaths, were two of barrack-serjeants, one of whom died of *delirium tremens*, and the other of apoplexy. If these be deducted, the ratio of deaths per 1,000 of the effective force, would amount only to 11·22; and there is nothing to be added on account of invalids who died at Chatham, or on their passage home.

These results present a striking, but easily explained, contrast with the mortality of former periods in this island—for instance the twenty years, 1817-36, when it ranged between 61 and 307 per 1,000 annually. At that time the troops were almost entirely quartered in the plains, where the sources of fever abound: during the past year, three-fourths of them have been stationed at Newcastle, at an elevation of 3,800 feet. The average strength of the white troops at this station was 481; the admissions into hospital amounted to 595, and the deaths to 4, being in the annual ratio of 1,237 and 8·32 per 1,000, or a mortality rather lower than that of the Foot Guards. At the stations in the lowlands, the average strength was 143, the admissions were 238, and the deaths 5, or 1,664 and 34·96 per 1,000 of the strength; but if the two barrack-serjeants already noticed be omitted, the mortality would only amount to 20·98 per 1,000, or about twice and a-half that at Newcastle.

It must not be forgotten, however, that the sickness and mortality in tropical climates are subject to great fluctuations, and that 1859 was a healthy year to the civil population of the island, as well as to the military. It would be imprudent, therefore, to draw any very decided deductions from the results of one year.

Jamaica.

In the following table, compiled from Abstract No. IX of Appendix, showing the classes of diseases by which the admissions and deaths among the white troops were occasioned, it has not been deemed necessary to state the ratios of the former period, when the troops were so differently situated; but the admissions during the past year at Newcastle and Port Royal, are given with a view to show in what classes the difference between the hill and lowland stations is chiefly found.

	White Troops, Jamaica.				Newcastle.	Port Roy.	Newcastle.	Port Royal.
	Strength 624.		Ratio per 1,000.		Strength 481	Strength 124	Ratio per 1000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Admitted.	Admitted.	Admitted.
Class I.								
1. Miasmatic diseases ..	269	3	431·1	4·8	175	78	363·8	629·
2. Enthetic „ ..	133	..	213·2	..	101	31	210·	250·
3. Dietic „ ..	..	..	..	..	..	..	..	..
4. Parasitic „ ..	..	..	..	..	..	..	..	..
Class II.								
1 Diathetic diseases ..	1	..	1·6	..	..	..	..	..
2. Tubercular „ ..	..	..	..	..	..	..	..	..
Class III. Diseases of the—								
1. Nervous system ..	14	3	22·5	4·8	3	6	6·2	48·4
2. Circulatory „ ..	2	..	3·2	..	1	1	2·1	8·1
3. Respiratory „ ..	32	..	51·3	..	25	5	52·	40·3
4. Digestive „ ..	160	1	256·4	1·6	145	12	301·5	96·8
5. Urinary „ ..	..	..	..	..	..	..	..	..
6. Reproductive „ ..	1	..	1·6	..	1	..	2·1	..
7. Locomotive „ ..	..	..	..	..	..	..	..	..
8. Integumentary „ ..	127	..	203·5	..	84	42	174·6	338·7
Class IV.								
4. Diseases of Nutrition ..	3	..	4·8	..	3	..	6·2	..
Class V.								
1. Accidents	82	..	131·4	..	49	30	101·9	241·9
3. Homicide	..	1	..	1·6	..	..	..	..
4. Suicide	1	1	1·6	1·6	1	..	2·1	..
6. Corporal punishment ..	6	..	9·6	..	6	..	12·4	..
Diseases not stated.. ..	2	..	3·2	..	1	1	2·1	8·1
Total	833	9	1335·	14·4	595	206	1237·	1661·3

This table shows that one-third of all the admissions and deaths among the white troops has been caused by mias-

matic diseases; and that another third of the deaths has been by diseases of the nervous system. On subdividing the miasmatic diseases, we obtain the following results:— *Jamaica.*

	Jamaica.				Newcastle.		Port Royal.	
			Ratio per 1,000.			Ratio per 1000.		Ratio per 1,000.
	Admitted.	Died.	Admitted	Died.	Admitted.	Admitted.	Admitted.	Admitted.
Eruptive fevers	..	..	..	..	..	..	..	..
Paroxysmal „	82	3	131·4	4·81	14	29·1	55	443·5
Continued „	14	..	22·4	..	4	8·3	10	80·6
Dysentery, Diarrhœa, and Cholera	26	..	41·7	..	24	49·9	1	8·1
Sore Throat..	8	..	12·8	..	8	16·6	..	..
Ophthalmia..	129	..	206·7	..	117	243 2	10	80·6
Rheumatism	10	..	16·	..	8	16·6	2	16·1

From this it appears that the admissions by paroxysmal fevers have amounted only to 131, and the deaths to 4·81 per 1,000 of the strength, presenting a striking contrast to the results of the period when the white troops were quartered in the lowlands. Thus, on the average of the twenty years, 1817-36, the admissions by this class of fevers were 863 per 1,000 of the strength, and the deaths as high as 100·18, or one-tenth of the whole force.

Ophthalmia has been a source of considerable inefficiency, the admissions having amounted to 207 per 1,000 of the strength.

On comparing the relative prevalence of these groups at Newcastle and Port Royal, the only lowland station now occupied by any number of white troops, a great difference will be observed. At the former, paroxysmal fevers can scarcely be said to prevail, and even continued fevers furnish only one-fourth of the proportion of Port Royal, while diarrhœa and sore throat may be said to be confined to Newcastle, and the cases of ophthalmia are three times as high there as at Port Royal.

Jamaica. Enthetic Diseases.—The white troops in Jamaica formerly enjoyed a marked exemption from this class of diseases, the admissions on the average of twenty years having only been 20 per 1,000 of the strength. To whatever cause it was attributable, this exemption appears to have ceased; the proportion admitted in 1859 being as high as 213 per 1,000.

Tubercular Diseases, which were formerly a source of considerable mortality in Jamaica, have not been the cause of a single admission.

Diseases of the Nervous System have given rise to a mortality of 4·8 per 1,000; but two of the deaths were those of the barrack-serjeants already noticed. *Delirium Tremens* furnished 10 admissions and 2 deaths, being in the ratio of 16·0 and 3·2 per 1,000 of the strength.

Diseases of the Digestive System have been much more numerous at Newcastle than at Port Royal, but the difference has been almost entirely in cases of dyspepsia.

The other classes of diseases do not seem to require comment.

II. Black Troops.

The strength of the black troops averaged 807, the admissions into hospital were 1,034, and the deaths 27, being in the annual ratio of 1,281 and 30·95 per 1,000. On the average of ten years, 1840–9, the admissions and deaths among this class of troops were in the ratio of 834 and 29·86 per 1,000, so that, in 1859. the mortality was very slightly in excess of, but the sickness was one-half more than, the average.

The following table, compiled from Abstract No. X of Appendix, shows the admissions and deaths during the year, contrasted with those of the white troops for the same period:—

	Black Troops.				White Troops.	
	Strength, 807		Ratio per 1,000.		Ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Class I.						
1. Miasmatic diseases ..	504	11	624·5	13·63	431·1	4·8
2. Enthetic „ ..	266	2	329·6	2·48	213·2	..
3. Dietic „ ..	..	..	..	..	..	..
4. Parasitic „ ..	1	..	1·2	..	..	..
Class II.						
1. Diathetic diseases ..	3	1	3·7	1·23	1·6	..
2. Tubercular „ ..	19	7	23·5	8·67	..	..
Class III.						
Diseases of the—						
1. Nervous system ..	25	1	31·	1·23	22·5	4·8
2. Circulatory „ ..	1	..	1·2	..	3·2	..
3. Respiratory „ ..	37	3	45 9	3·71	51·3	.
4. Digestive „ ..	24	..	29·8	..	256·4	1·6
5. Urinary „ ..	2	..	2·5	..	..	.
6. Reproductive „ ..	..	..	..	..	1·6	..
7. Locomotive „ ..	1	..	1 2	..	..	..
8. Integumentary „ ..	83	..	102·9	..	203·5	..
Class IV.						
4. Diseases of Nutrition ..	..	..	..	..	4·8	..
Class V.						
1. Accidents..	52	..	64·4	..	131·4	..
3. Homicide..	..	..	..	..	..	1·6
4. Suicide	..	..	..	..	1·6	1·6
6. Corporal punishment ..	9	..	11·2	..	9·6	..
Diseases not stated	7	..	8·7	..	3·2	..
Total	1,034	25	1281·3	30·95	1335·	14·4

This table shows that half of the admissions were caused by miasmatic diseases, and one-fourth by venereal, while the chief mortality has arisen from miasmatic and tubercular diseases.

The following table shows the principal groups of the miasmatic diseases which have given rise to this sickness and mortality:—

	Black Troops.				White Troops.	
			Ratio per 1,000.		Ratio per 1,000.	
	Admitted.	Died.	Admitt.	Died.	Admitt.	Died.
Eruptive fevers	..	..	..	..	..	..
Paroxysmal „	387	5	479·5	6·19	131·4	4·81
Continued „	12	5	14·9	6·19	22·4	..
Dysentery, Diarrhœa, and Cholera	24	1	29·8	1·24	41·7	..
Sore Throat	12	..	14·9	..	12·8	..
Ophthalmia	20	..	24·8	..	206·7	..
Rheumatism	49	..	60·7	..	16·	..

Jamaica. Thus it appears that the admissions by this class of diseases have been chiefly caused by paroxysmal fevers, which have prevailed to a greater extent, and caused a higher rate of mortality than among the white troops, and even higher than among those quartered at Port Royal. The ordinary type was the intermittent, of which 325 cases occurred, and 62 of the remittent. Among those of the continued form were 7 cases and 4 deaths of typhoid fever, all of which occurred at Up Park Camp, in the first quarter of the year. The type of disease and its fatal character appear to have been, to a great extent, due to the defective construction and offensive state of the privies.

Enthetic Diseases have been even more common among the black troops than among the white. Of the admissions 136 were from syphilis, &c., and 130 from gonorrhœa and swelled testicle. Among the whites the proportion was somewhat different, the syphilitic affections having been 85 and the gonorrhœal only 48.

Tubercular Diseases continue to be a source of great mortality among the negroes, the proportion of deaths in 1859 having been as high as 8·67 per 1,000 of the strength. The average of the twenty years 1817–36 was 7·85 per 1,000.

Diseases of the Respiratory Organs have been nearly as prevalent among the blacks as the whites, and have given rise to a higher mortality, while the reverse is the case as regards the next class, viz.—

Diseases of the Digestive Organs, from which the black troops appear to enjoy a very marked exemption.

Diseases of the Integumentary System have been twice as prevalent among the white as the black troops, the difference being in the admissions by boils and by ulcers.

No death by suicide occurred among the black troops during the year.

The proportion of admissions from the effects of corporal punishment was higher among the black than the white troops, in the proportion of 11·2 to 9·6 per 1,000.

III. The Bahamas.

Bahamas. The force in these Islands consisted of a few Artillerymen, and a detachment of the 1st West India Regiment. The average strength of the white troops, including the European non-commissioned officers of the West India Regiment, was 27, and of these only one, a company serjeant-major, died, the cause of death being *delirium tremens*. The strength

of the black troops was 322, among whom 268 admissions into hospital and 13 deaths occurred, being in the ratio of 832 and 40·3 per 1,000 of the strength. During the 20 years, 1817-36, the admissions averaged 1,070, and the deaths 40·1 per 1,000 of the strength annually, so that in 1859 the sickness was below the previous average, but the mortality remained unaltered. *Bahamas.*

The following table compiled from Abstract No. X of Appendix, shows the principal classes of diseases among the black troops:—

	Strength, 322.		Ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.
Class I.				
1. Miasmatic diseases	123	..	382·	9·3
2. Enthetic „	49	..	152·2	..
3. Dietic „	1	..	3·1	..
4. Parasitic „	..	3	..	..
Class II.				
1. Diathetic diseases	1	1	3·1	3·1
2. Tubercular „	5	5	15·5	15·5
Class III.				
Diseases of the—				
1. Nervous System	5	2	15·5	6·2
2. Circulatory „	..	..	..	..
3. Respiratory „	19	1	59·	3·1
4. Digestive „	6	..	18·6	..
5. Urinary „	1	..	3·1	..
6. Reproductive „	..	..	..	..
7. Locomotive „	1	..	3·1	..
8. Integumentary „	26	..	80·8	..
Class IV.				
4. Diseases of Nutrition	2	..	6·2	..
Class V.				
1. Accidents	25	..	77·6	..
4. Suicide	..	1	..	3·1
6. Corporal Punishment	2	..	6·2	..
Diseases not stated	2	..	6·2	..
Total	268	13	832·2	40·3

If these results be compared with the black troops in Jamaica, the most striking points will be found to be the less prevalence of miasmatic and enthetic diseases, and the much higher rate of mortality from tubercular diseases in the Bahamas, while the proportion of admissions by diseases both of the respiratory and of digestive systems is nearly alike, and considerably lower than among the black troops in the Windward and Leeward command.

IV. Honduras.

Honduras.

In 1859 the force in this settlement amounted to 27 Europeans, and 322 Blacks. The former were men of the Royal Artillery, and non-commissioned officers of the 1st West India Regiment, and the latter a detachment of that regiment from Jamaica. The only death among the Europeans was that of a gunner of the Royal Artillery, who was accidentally drowned.

Among the black troops, there were 274 admissions into hospital, and 2 deaths, both caused by a large draught of new rum; in one instance death was almost instantaneous, and in the other the man survived only ten hours. These numbers give 851 as the annual ratio of admissions and 6·2 of deaths. During the fifteen years 1822-36, the average was 881 and 30· per 1,000, so that there has been a considerable reduction in the mortality. But it must be remembered, that during that period there were great fluctuations in the deaths, the ratio having ranged between 59 in 1836, and 8 in 1833.

The following table, framed from Abstract No. X of Appendix, shows the principal classes of diseases, by which the admissions in 1859 were caused :—

	Strength, 322.		Annual ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.
Class I.				
1. Miasmatic diseases	94	..	291·9	..
2. Enthetic „	39	..	121·1	..
3. Dietic „	1	2	3·1	6·2
4. Parasitic „	6	..	18·6	..
Class II.				
1. Diathetic diseases	..	..	..	..
2. Tubercular „	..	..	..	..
Class III. Diseases of the—				
1. Nervous system	2	..	6·2	..
2. Circulatory „	..	..	..	..
3. Respiratory „	21	..	65·2	..
4. Digestive „	12	..	37·3	..
5. Urinary „	2	..	6·2	..
6. Reproductive „	..	..	..	..
7. Locomotive „	1	..	3·1	..
8. Integumentary „	45	..	139·8	..
Class IV.				
4. Diseases of Nutrition	..	..	..	..
Class V.				
1. Accidents	43	..	133·5	..
6. Corporal Punishment	6	..	18·6	..
Diseases not stated	2	..	6·2	..
Total	274	2	850·8	6·2

The prevalence of the various classes does not appear to differ greatly from the results obtained with regard to the Bahamas, except in miasmatic diseases, which have been more numerous at the latter station. There has also been at Honduras a complete exemption during the year from tubercular diseases. Diseases of the respiratory and digestive organs have prevailed to a slightly greater extent than in Jamaica, but much less than in the Windward and Leeward Commands. *Honduras.*

Section II.

Extent of Invaliding.

The number of invalids from the West Indies finally discharged the service at Chatham in 1859 was, from the Windward and Leeward Command, 6, being in the proportion of 4·9 per 1,000 of force employed; and from Jamaica, 3, or 4·8 per 1,000. The disabilities of these men were as follows:— *West Indies.* Invaliding.

	Windward and Leeward command.	Jamaica.
Eye diseases	2	..
Hernia	1	..
Mental disease	1	..
Paralysis	..	1
Pulmonary disease	1	..
Ulcers and Varices	..	1
Venereal	1	..
Worn out	..	1

It appears unnecessary to offer any remarks, as the numbers are too few to have any effect upon our previous conclusions regarding the influence of the various diseases upon the troops in these Commands.

Section III.

Mean Daily Sick.

The average constantly non-effective from sickness amounted in the Windward and Leeward command to 60 of the white troops, and 51 of the black; and in Jamaica to Mean sick.

West Indies.

Mean sick

36·24 whites, and 55·95 blacks. These numbers give the following results:—

	White Troops.		Black Troops.	
	Windward and Leeward Comma	Jamaica.	Windward and Leeward Command.	Jamaica.
Ratio per 1,000 constantly sick ..	49·38 days.	58·08 days.	40·48 days.	69·33 days.
Mean sick time to each soldier.. ..	18·02	21·20	14·77	25·30
Average duration of each case of disease	15·97	15·88	14·59	19·75

Compared with previous periods (1817–36), there is a reduction in all the particulars noted in the table, but to a much greater extent in the Windward and Leeward Command than in Jamaica. It will be observed that the mean sick of the black troops is much higher in Jamaica, but the information contained in the returns from the Windward and Leeward command is not sufficiently detailed to enable us to trace the causes of this difference.

The mean daily sick of the black troops in the Bahamas in 1859 is stated at 9·48 or 29·45 per 1,000 of the strength. The average number of days' sickness to each man of the force must therefore have been 10·75, and the average duration of each case in hospital, 12·91 days.

Section IV.

Influence of Age on the Mortality.

Influence of age.

The only available returns are those of the 3rd West India Regiment, serving in the Windward and Leeward Command, of which the following is a summary:—

	Under 20.	20–24.	25–29.	30–34.	35–39.	40 and upwards.	Total.
Strength on April 1	103	356	216	205	160	31	1,071
Deaths during the year	1	4	7	8	1	..	21
Ratio per 1,000	9·71	11·24	32·41	39·02	6·25	..	19·61

There are no previous returns of the mortality at different ages among the black troops with which to compare these results, and the numbers are too few to warrant any decided conclusions. We have recorded them here that they may be available for future reference.

V. On the Health of the Troops serving in Western Africa.

Western Africa.

The troops employed in Western Africa consisted of a detachment of the 1st West India Regiment at Sierra Leone and the Gambia, and the Gold Coast Artillery Corps at Cape Coast Castle, with detachments at Accra, Annamaboe, and Dixcove. The force consisted entirely of blacks, with the exception of four or five European Serjeant-Majors, of whom three died in the course of the year, two of fever at the Gambia, and the third of dysentery at Accra.

The average strength of black troops at Sierra Leone during the year was 356, the admissions into hospital among them were 193, and the deaths 5, being in the ratio of 542 and 14·02 per 1,000. In the 18 years 1819–36 the admissions averaged 812, and the deaths 30·1 per 1,000 of the strength, so that during the past year the admissions have amounted to two-thirds, and the deaths been rather less than half the former average.

At the Gambia, the average strength was 314; the admissions were 205, and the deaths 8, being in the ratio of 653 and 25·44 per 1,000.

On the Gold Coast, the force was 279, among whom 162 admissions and 7 deaths occurred, being in the ratio of 581 and 25·06 per 1,000.

The diseases by which the admissions into hospital and deaths have been occasioned will be found specified in Abstract No. XI of Appendix, from which the following table has been compiled :—

Class.	Order.	Stations	Sierra Leone.				Gambia.				Gold Coast.			
		Strength	356.				314.				279.			
		Diseases.	Admitted.	Died.	Ratio per 1,000.		Admitted.	Died.	Ratio per 1,000.		Admitted.	Died.	Ratio per 1,000.	
					Admitted.	Died.			Admitted.	Died.			Admitted.	Died.
I.	1	Miasmatic diseases ..	80	1	224·7	2·8	62	..	197·4	..	33	2	118·3	7·16
	2	Enthetic „ ..	38	..	106·8	..	47	1	149·7	3·18	9	..	32·3	..
	3	Dietic „ ..	..	..	..	..	..	..	..	..	..	..	..	..
	4	Parasitic „ ..	2	..	5·6	..	8	..	25·5	..	70	..	250·9	..
II.	1	Diathetic „ ..	1	..	2·8	..	2	..	6·4	..	..	..	..	..
	2	Tubercular „ ..	6	2	16·9	5·61	2	1	6·4	3·18	..	..	..	..
III.		Diseases of the—												
	1	Nervous system ..	..	..	..	..	6	..	19·1	..	3	..	10·8	..
	2	Circulatory „ ..	..	..	..	..	1	1	3·2	3·18	..	..	..	..
	3	Respiratory „ ..	14	..	39·3	..	31	2	98·7	6·36	6	..	21·5	..
	4	Digestive „ ..	10	2	28·1	..	6	..	19·1	..	7	2	25·	7·16
	5	Urinary „ ..	2	..	5·6	5·61	..	..	..	..	2	..	7·1	..
	6	Reproductive „ ..	..	..	..	..	1	..	3·2	..	1	..	3·6	..
	7	Locomotive „ ..	4	..	11·2	..	1	..	3·2	..	..	..	..	..
	8	Integumentary „ ..	19	..	53·4	..	16	..	50·9	..	21	..	75·3	..
IV. ..	4	Diseases of Nutrition ..	1	..	2·8	..	2	..	6·3	..	..	..	..	..
V.	1	Accidents	15	..	42·1	..	13	..	41·4	..	7	2	25·	7·16
	3	Homicide	..	..	..	..	1	1	3·2	3·18	..	..	..	..
	4	Suicide	..	..	..	..	..	1	..	3·18	..	1	..	3·58
	5	Execution	..	..	..	..	..	1	..	3·18	..	..	..	..
	6	Corporal Punishment ..	..	..	..	..	1	..	3·2	..	..	..	..	..
		Diseases not stated	1	..	2·8	..	5	..	15·9	..	3	..	10·8	..
		Total	193	5	542·1	14·02	205	8	652·8	25·44	162	7	580·6	25·06

The most striking points in this table are the comparative exemption of the troops on the Gold Coast from miasmatic and enthetic, and the great prevalence among them of parasitic diseases. The low rate of mortality by tubercular diseases is also worthy of notice. *Western Africa.*

The relative prevalence of the chief diseases constituting the miasmatic order is shown in the following table :—

Diseases.	Sierra Leone.		The Gambia.		The Gold Coast.	
	Admitted.	Ratio per 1,000.	Admitted.	Ratio per 1,000.	Admitted.	Ratio per 1,000.
Eruptive Fevers	18	50·6	10	31·8	..	..
Paroxysmal „	21	59·	26	82·8	6	21·5
Continued „	3	8·4	10	31·8	2	7·2
Dysentery and Diarrhœa ..	3	8·4	5	15·9	9	32·3
Sore Throat ..	2	5·6	1	3·2	..	..
Ophthalmia ..	4	11·2	3	9·6	6	21·5
Rheumatism ..	29	81·5	7	22·2	10	35·8

From this, it appears that at Sierra Leone and on the Gold Coast, rheumatism has been the cause of the greatest number of admissions, while, at the Gambia, paroxysmal fevers have been greatly in excess.

Eruptive fevers gave rise to a comparatively large number of admissions at Sierra Leone and the Gambia. This was in consequence of small pox breaking out among a batch of recruits who had been taken from a slaver. The disease fortunately proved mild, although the men were not protected by vaccination. Several attempts were made to vaccinate the men, which, unfortunately, were all unsuccessful. None of the cases of small pox proved fatal.

Paroxysmal and continued fevers were very prevalent at the Gambia, but gave rise to no deaths among the black troops. Yellow fever prevailed to a great extent among the civil population, and is stated to have cut off half the white inhabitants in this colony. The French settlement of Goree, 80 miles to the north, is said to have suffered "to an extent truly appalling."

Parasitic Diseases gave rise to nearly half the admissions on the Gold Coast. They were all caused by Guinea worms, of which no fewer than seventy cases came into hospital, while two only occurred at the Gambia, and none at Sierra Leone. The disease is endemic on the Gold Coast, and is attributed to the bad quality of the water.

Western Africa.

Three violent deaths are recorded at the Gambia—a murder, an execution, and a suicide, and three on the Gold Coast, two by drowning and one suicide. There were none by this class at Sierra Leone. If these be deducted, the ratios of mortality by disease at the three stations will be found to approximate very closely.

There was no case of corporal punishment during the year, a striking contrast to the results of the period from 1819 to 1836, when the annual average amounted to 44 per 1,000 of the strength.

VI. On the Health of the Troops serving in the Island of St. Helena.

St. Helena.

The troops employed consisted of a company of Royal Artillery and the St. Helena Regiment; the average strength was 465, out of which 373 admissions into hospital and four deaths occurred, being in the ratio of 802 and 8·60 per 1,000; but two deaths of invalids, one on the passage home, and the other at Chatham, must be added, which raise the mortality to 12·90 per 1,000. Two of the deaths in the island were the result of accident, one man having been killed by a rock and another by a tree falling upon him; only four, therefore, occurred from disease.

During the ten years 1837–46 the admissions averaged 943, and the deaths, exclusive of those among invalids, 16·62 per 1,000 of the strength, so that the results of 1859 show a considerable reduction in both.

The following table, compiled from No. XII of Appendix, shows the principal classes of diseases by which the admissions and deaths were occasioned:—

	Strength, 465.				Ratio per 1,000 of Strength.			
		Died.			1859.		1837–46.	
	Admitted.	At St. Helena.	Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
Class I.								
1. Miasmatic diseases ..	177	1	..	1	380·66	2·15	304·	3·64
2. Enthetic „ ..	43	..	..	..	92·47	..	99·8	..
3. Dietic „ ..	..	..	..	..	..	..	1·	..
4. Parasitic „ ..	2	..	..	..	4·30	..	1·8	..
Class II.								
1. Diathetic diseases ..	3	..	..	..	6·45	..	6·	..
2. Tubercular „ ..	3	..	..	..	6·45	..	21·	5·45
Class III.								
Diseases of the—								
1. Nervous system ..	9	..	1	1	19·35	2·15	22·1	1·3
2. Circulatory „ ..	9	1	..	1	19·35	2·15	7·5	1·04
3. Respiratory „ ..	14	..	..	..	30·11	..	86·2	1·81
4. Digestive „ ..	15	..	1	1	32·26	2·15	105·5	1·56
5. Urinary „ ..	..	..	..	..	..	..	5·7	..
6. Reproductive „ ..	..	..	..	..	..	..	3·1	..
7. Locomotive „ ..	1	..	..	..	2·15	..	2·6	·26
8. Integumentary „ ..	51	..	..	..	109·68	..	153·	·26
Class IV.								
4. Diseases of Nutrition ..	..	..	..	..	..	..	2·3	·26
Class V.								
1. Accidents	37	2	..	2	79·57	4·30	111·7	·52
4. Suicide	..	..	..	..	..	..	..	·52
6. Corporal Punishment ..	..	..	..	..	..	..	2·9	..
Diseases not stated ..	9	..	..	..	19·35	..	7·	..
Total	373	4	2	6	802·15	12·90	943·2	16·62

St. Helena. This table shows an increase to the extent of 77 per 1,000 in miasmatic diseases, but a marked decrease in those of the respiratory and digestive organs, while there has been no death by tubercular diseases, the mortality from which formerly averaged 5½ per 1,000 of the strength. An analysis of the admissions by miasmatic diseases furnishes the following results:—

Diseases.	1859.		1837–46.
	Admitted.	Ratio per 1,000 admitted.	Ratio per 1,000 admitted.
Eruptive Fevers	..	..	1·3
Paroxysmal „	..	..	4·7
Continued „	106	227·9	64·1
Dysentery, Diarrhœa, and Cholera	44	94·6	134·4
Sore Throat	6	12·9	5·7
Ophthalmia	3	6.4	2·8
Rheumatism	17	36·6	60·2

Thus, it appears, that a very great increase has taken place in continued fevers, while there has been a marked decrease in dysentery, diarrhœa, and cholera, and in rheumatism. The high ratio of continued fever is attributed, by the Surgeon of the St. Helena Corps, to the very crowded state of the barracks, solar heat, and intemperance. "Many of the fever cases," he observes, "were only of one or two days' duration, and ought to have been called 'ebrietas,' as they were unmistakeably occasioned by the abuse of wine."*

Not only has there been a great reduction in the prevalence of dysentery and diarrhœa, but also a marked change in their character. In 1859 only one case of dysentery was admitted, while there were forty-three of diarrhœa, whereas formerly their relative proportions were two to one. This result is probably to a considerable extent attributable to improved diet, salt meat being now issued only four instead of five times a week, and an abundant supply of vegetables, for part of the year at least, being raised at the regimental farm.

To the same cause may, perhaps, be attributed the diminution of diseases of the digestive system, which has been chiefly shown in cases of constipation and dyspepsia.

Notwithstanding the intemperate habits of the men, as already noticed, only two cases of *delirium tremens* have

* This defect will be remedied in future by the adoption of the Statistical Nomenclature.

been admitted, and during previous periods, this disease appears to have been equally rare. *St. Helena.*

No case of corporal punishment occurred during the year.

Only one invalid from St. Helena was discharged the service at Chatham, his disability being pulmonary disease. Invaliding.

The mean daily sick averaged 16·85, being in the ratio of 36·23 per 1,000 of the strength. From this we deduce the sickness to have been in the proportion of 13·23 days to each man of the force, and the duration of each case to have been 16·49 days. Mean sick.

VII. On the Health of the Troops serving at the Cape of Good Hope.

Section I.

Sickness and Mortality.

Cape of Good Hope.

In the beginning of 1859, the force at the Cape consisted of Royal Artillery, Royal Engineers, the 1st Battalion 2nd, the 45th and 85th Regiments, and the Cape Mounted Rifles. On the 19th of January, the 59th Regiment landed from China, and on the 1st of February, the 2nd Battalion 13th Regiment, from England; and on the 2nd of June, the 45th left the colony for England.

The average strength during the year was 4,322, from which the admissions into hospital amounted to 4,657, and the deaths to 63, being in the proportion of 1,077 and 14·57 per 1,000. But this does not represent correctly the amount of sickness and mortality to which troops serving at the Cape are liable. The 59th Regiment had been so completely broken down by disease in China, that it was deemed necessary to send it to the Cape for change of climate, where it arrived on the 19th of January in a very sickly state, having lost 27 men during the voyage. From that date till the end of the year, it furnished 1,096 admissions and 18 deaths, out of an average strength of 641 men. If this regiment be entirely omitted from the calculations, the sickness and mortality at the Cape would only amount to 967, and 12·22 per 1,000 of the strength. During the ten years, 1837-46, the admissions averaged 945, and the deaths, exclusive of killed in action, 16·54 per 1,000; so that in 1859, the former were slightly in excess of, but the latter one-fourth under, the average.

As the returns do not enable us completely to separate the diseases of the 59th from those of the rest of the troops, we have prepared the abstract of the diseases at Cape Town, where that regiment was stationed along with detachments of Artillery and of the Cape Mounted Rifles, distinct from those on the Eastern Frontiers and at Natal; and the results are shown in the following table compiled from No. XII of Appendix.

Class	Order.	Diseases.	1859. Cape Town. Strength 664. Admitted.	Died.	Ratio per 1,000. Admitted.	Ratio per 1,000. Died.	1859. Natal. Strength 562. Admitted.	Died.	Ratio per 1,000. Admitted.	Ratio per 1,000. Died.	1859. Eastern Frontiers. Strength 3,096. Admitted.	Died.	Ratio per 1,000. Admitted.	Ratio per 1,000. Died.	1837-46. Cape. Strength 24,947. Ratio per 1,000. Admitted.	Ratio per 1,000. Died.
I.	1	Miasmatic diseases ..	678	10	1021·1	15·1	203	2	361·2	3·55	801	7	258·7	2·26	304·1	5·25
	2	Enthetic „ ..	181	1	272·6	1·5	67	..	119·2	..	487	..	157·3	..	130·4	·12
	3	Dietic „ ..	2	..	3·	..	..	..	..	..	3	1	1·	·33	9·3	·24
	4	Parasitic „ ..	9	..	13·6	..	3	..	5·3	..	127	..	41·	..	4·3	..
II.	1	Diathetic „ ..	7	..	10·5	..	1	..	1·8	..	19	..	6·1	..	5·7	·12
	2	Tubercular „ ..	8	..	12·1	..	10	2	17·8	3·55	24	5	7·8	1·61	8·4	2·32
		Diseases of the—														
III.	1	Nervous system ..	34	7	51·2	10·5	19	..	33·8	..	70	4	22·6	1·28	24·9	1·32
	2	Circulatory „ ..	8	..	12·1	..	12	..	21·3	..	95	6	30·7	1·93	16·1	1·24
	3	Respiratory „ ..	70	2	105·4	3·	43	..	76·5	..	232	1	74·9	·33	112·7	1·68
	4	Digestive „ ..	37	..	55·7	..	31	1	55·2	1·77	149	3	48·1	·97	76·2	·68
	5	Urinary „ ..	..	..	..	..	1	1	1·8	1·77	2	..	·7	..	4·8	.20
	6	Reproductive „ ..	6	..	9·	..	..	..	..	..	22	..	7·1	..	·8	..
	7	Locomotive „ ..	1	..	1·5	..	2	..	3·6	..	13	..	4·2	..	2·3	..
	8	Integumentary „ ..	111	..	167·2	..	64	..	113·9	..	387	..	125·1	..	135·2	·16
IV...	4	Diseases of Nutrition ..	11	..	16·6	..	..	..	..	..	6	..	1·9	..	·3	·05
V.	1	Accidents	91	1	137·1	1·5	47	1	83·6	1·77	299	8	96·5	2·59	97·1	2·44
	3	Homicide	..	..	..	..	..	..	..	..	..	..	..	..	..	·12
	4	Suicide	..	..	..	..	..	..	..	..	..	..	..	..	..	·44
	6	Corporal Punishment ..	2	..	3·	..	2	..	3·6	..	20	..	6·5	..	6·5	..
		Diseases not stated ..	30	..	45·2	..	8	..	14·2	..	102	..	32·9	..	5·5	·16
		Total ..	1,286	21	1936·9	31·6	513	7	912·8	12·41	2,858	35	923·1	11·30	944·6	16·54

Cape of Good Hope.

This table shows a great similarity in the prevalence and mortality of the principal classes of diseases at Natal and on the Eastern Frontiers. At Cape Town there has been a great preponderence of miasmatic and enthetic diseases, and also of those of the respiratory organs.

MIASMATIC DISEASES.

		Cape Town.	Natal.	Eastern Frontiers.
Annual ratio per 1,000	Admitted	1,021	361	259
	Died ..	15·1	3·55	2·26

As the greater portion of the troops at Cape Town during the year consisted of the head-quarters of the 59th, the excess of miasmatic diseases there may be fairly attributed to the influence of the climate of China rather than that of the Cape. This will be even more clearly seen when the class is subdivided into smaller groups of diseases :—

Diseases.	Cape Town.		Natal.		Eastern Frontiers.		Ratio per 1,000 of Strength.							
							Cape Town.		Natal.		Eastern Frontiers.		Cape, 1837–46.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eruptive Fevers ..	1	..	..	..	12	1	1·5	..	..	..	4·	·33	·7	..
Paroxysmal „ ..	370	3	..	..	41	..	557·2	4·51	..	..	13·2	..	1·	·05
Continued „ ..	19	1	69	1	137	3	28·6	1·50	122·8	1·77	44·2	·97	52·6	1 6
Dysentery, Diarrhœa and Cholera ..	180	6	13	1	130	3	271·1	9·03	23·1	1·77	42·	·97	110·8	3·2
Sore Throat	20	..	11	..	56	..	30·1	..	19·6	..	18·1	..	13·9	·05
Ophthalmia	28	..	78	..	273	..	42·2	..	138·8	..	88·2	..	57·2	..
Rheumatism	54	..	31	..	141	..	81·3	..	55·2	..	45·5	..	64·8	·10

Cape of Good Hope.

This clearly shows that paroxysmal fevers and dysentery, diarrhœa, &c., occasioned the very high rate of admissions and deaths by miasmatic diseases at Cape Town; but these were the forms of disease under which the 59th had suffered so much in China, and the liability to which continued for a long time to affect it. Of the 41 cases of paroxysmal fevers among the troops on the Eastern Frontiers, a very large proportion occurred in a detachment of the same regiment at Fort Beaufort; indeed, it may be safely affirmed that they are unknown as endemic diseases at the Cape. Fevers of the continued type have been thrice as prevalent at Natal as on the Eastern Frontiers, but have not in any instance proved fatal. Ophthalmia has also been a source of considerable inefficiency at Natal. It will be observed that although dysentery and diarrhœa are much more prevalent on the Eastern Frontiers than at Natal, they do not amount, even there, to half the previous average.

Enthetic Diseases have been much more prevalent at Cape Town than either on the Frontiers or at Natal, and have been twice as frequent as formerly.

Tubercular Diseases have given rise to more admissions and deaths at Natal than at the other stations, and have exceeded the previous average of the Cape command.

Diseases of the Nervous System have given rise to a very high ratio of mortality at Cape Town. Of the deaths three were from apoplexy in the 59th Regiment, and occurred during the first quarter after its arrival, one was from paralysis, also in the 59th, and three were caused by *delirium tremens* in the Royal Artillery. There was no death from the latter disease at Natal, and only one on the Eastern Frontiers, in the 2nd Battalion, 13th Regiment.

Corporal Punishment.—The proportion of cases in which this was inflicted was, at Cape Town, 3 per 1,000; at Natal, 3·6; and on the Eastern Frontiers, 6·5, the last being exactly the same as during the ten years 1837-46.

The question of the formation of a sanatorium at the Cape for invalids from China and India, having at different times occupied the attention of the authorities, it may be interesting to see what effect the climate produced upon the 59th Regiment, which had been rendered utterly non-effective by sickness in China. It landed on the 19th of January, and the admissions and deaths during the remainder of the year were as follows:—

			Annual ratio per 1,000 of Strength.	
	Admitted.	Died.	Admitted.	Died.
19th January to 31st March	437	15	3,671	126·0
1st April to 30th June..	249	1	1,928	7·74
1st July to 30th September	213	..	1,216	..
1st October to 31st December	197	2	1,131	11·48

The rapid decrease in the amount of sickness is very satisfactory, and the high rate of mortality appears to have been at once arrested. In consequence of the sick of detachments at Cape Town of the Royal Artillery and Cape Mounted Rifles being mixed up with those of the 59th in the quarterly returns, we are unable to trace, so minutely as we could have wished, the progressive decrease in the different diseases, but it may be generally stated to have taken place chiefly in intermittent fever, dysentery, and diarrhœa.

II. *Invaliding.*

III. *Mean Daily Sick.*

Invaliding. Mean sick.

The usual details on these subjects are omitted, as it is impossible to separate the returns of the 59th Regiment from the others, and the exceptional circumstances under which this corps was sent to the Cape would nullify any conclusions that might be drawn from the results.

Section IV.

On the Influence of Age on the Mortality.

Influence of age.

In Abstract No. XIII of Appendix will be found a statement of the ages of the troops serving at the Cape, and the deaths in each quinquennial period of life, of which the following is a summary :—

Cape of Good Hope.

Influence of age.

	Under 20.	20—24.	25—29.	30—34.	35—39.	40 and upwards.	Total.
Strength	475	1,135	885	537	406	50	3,488
Deaths	..	9	13	5	6	3	36
Ratio of Deaths per 1,000 of Strength } ..		7·93	14·69	9·31	14·78	·60	10·32

These results show that the mortality has not increased with age in the same rapid ratio as has been observed in other colonies, and was found to be the case at the Cape itself in the period from 1830 to 1836; but the numbers are too small to justify any positive conclusions being drawn from them, or even to warrant our expecting them to show a regular progression.

VIII. On the Health of the Troops serving in the Island of Mauritius.

Section I.

Sickness and Mortality.

In the beginning of 1859 the force in this island consisted of Royal Artillery, Royal Engineers, and the 2nd Battalion 5th Regiment, and it was augmented, in the end of July, by the arrival of the 61st Regiment from Bombay. The average strength throughout the year was 1,254, the admissions into hospital amounted to 1,540, and the deaths to 16, being in the annual ratio of 1,237 and 13·82 per 1,000. Compared with the average of the ten years 1837–46, these ratios show a considerable increase in the admissions, but a reduction to the extent of more than one-third in the deaths. The former, however, was chiefly owing to the sickness in the 61st, which arrived from India, and brought with it many men predisposed to disease from their previous service. *Mauritius.*

In addition to the 16 deaths, 4 occurred among invalids on their passage home and at Chatham, which raise the proportion to 16·04 per 1,000. The diseases by which the sickness and mortality have been occasioned are detailed in Abstract No. XII of Appendix, from which the following table has been compiled :—

Mauritius.

	Strength, 1,254.				1859.		1838–54.	
		Died.			Ratio per 1,000.		Ratio per 1,000.	
	Admitted.	At Mauritius.	Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
Class I.								
1. Miasmatic diseases ..	564	7	3	10	453·	8·03	383·8	11·59
2. Enthetic „ ..	92	..	..	..	73·9	..	78·4	..
3. Dietic „ ..	7	..	..	..	5·6	..	1·1	·07
3. Parasitic „ ..	2	..	..	..	1·6	..	1·	..
Class II.								
1. Diathetic diseases ..	11	..	..	..	8·8	..	6·2	·17
2. Tubercular „ ..	30	2	1	3	24·1	2·4	15·9	5·14
Class III. Diseases of the—								
1. Nervous system ..	50	1	..	1	40·2	·8	20·3	1·2
2. Circulatory „ ..	23	..	..	..	18·5	..	3·7	·41
3. Respiratory „ ..	198	2	..	2	159·	1·61	83·7	1·54
4. Digestive „ ..	125	1	..	1	100·4	·8	99·4	1·83
5. Urinary „ ..	4	..	..	..	3·2	..	3·1	·14
6. Reproductive „ ..	9	..	..	..	7·2	..	3·2	..
7. Locomotive „ ..	7	..	..	..	5·6	..	2·	·03
8. Integumentary „ ..	258	..	..	..	207·2	..	123·7	·07
Class IV.								
4. Diseases of Nutrition ..	..	..	..	..	..	..	·5	·03
Class V.								
1. Accidents	100	..	..	..	80·3	..	69·1	·17
4. Suicide	2	3	..	3	1·6	2·4	..	..
6. Corporal Punishment ..	17	..	..	..	13·7	..	7·	..
Diseases not stated ..	41	..	..	..	32·9	..	7·5	..
Total	1,540	16	4	20	1,236·8	16·04	909·6	22·38

This table shows the increase of the admissions into hospital to have been chiefly caused by miasmatic diseases, and diseases of the nervous, respiratory, and integumentary systems, while the reduction in the mortality has been in the miasmatic and tubercular diseases.

Miasmatic Diseases.

		1859.	1837–46.
Ratio per 1,000	Admitted	453·	383·8
	Died	8·03	11·59

The admissions in 1859 have thus exceeded the previous average by 69 per 1,000, but the deaths have been 3½ per 1,000 under it. On subdividing this class, as in the preceding part of this report, the following results are obtained :— *Mauritius.*

Diseases.	1859.				1838–54.	
			Ratio per 1,000.		Annual ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eruptive Fevers	..	..	..	..	·6	..
Paroxysmal „	62	..	49·4	..	·6	..
Continued „	84	3	67·	2·39	122·1	2·74
Dysentery, Diarrhœa, and Cholera	317	4	252·8	3·19	148·6	8·70
Sore Throat	17	..	13·6	..	6·4	..
Ophthalmia	30	..	23·9	..	59·5	..
Rheumatism	54	..	43·1	..	43·1	·07

This table shows the increase to have been in paroxysmal fevers and dysentery diarrhœa and cholera, while there has been a considerable reduction in continued fevers and in ophthalmia. The increase in paroxysmal fevers, however, was not attributable to service in the Mauritius. Of 62 admissions by this type 53 were in the 61st Regiment, which, as already mentioned, arrived in the end of July from India.

The increase in dysentery and diarrhœa however, was much more marked in the 2nd Battalion 5th Regiment, than in the 61st. That corps had arrived in the Mauritius from England early in November, 1858, at the commencement of the hot season, and suffered very much from bowel affections, which continued to prevail in it throughout the whole of 1859, the admissions by dysentery amounting to 88·7, and by diarrhœa to 15·5 per 1,000 of the strength, while the 61st had 54·5 of the former and 29·8 of the latter.

Tubercular Diseases have given rise to more admissions than formerly, but the mortality has not reached half the previous average.

Diseases of the Nervous System have been more than twice as numerous as formerly, but the increase has been in headaches and inflammation of the ear. There have been only five cases of *delirium tremens*, being in the ratio of 4 per 1,000 of the strength, and almost identical with the average of the previous 17 years. This presents a favourable contrast with the results of an earlier period—

Mauritius. 1823-36—when the annual average was as high as 17 per 1,000.

Diseases of the Respiratory System have considerably exceeded the average, principally from the number of cases of bronchitis in the 61st Regiment, and those of the integumentary system, from the great prevalence of boils and abscesses in the 5th Regiment.

Corporal Punishment was inflicted in 17 instances, being in the proportion of 13·7 per 1,000 of the strength, or nearly double the previous average. Thirteen of these were in the 2nd Battalion 5th Regiment, a newly-raised corps; 4 in the 61st, and none in the Ordnance. The ratio of corporal punishment in the two regiments respectively was 17·2 and 6·4 per 1,000 of mean strength.

Section II.

On the Extent of Invaliding.

Invaliding. During the year only 10 invalids from the Mauritius were discharged the service at Chatham, being 8 per 1,000 of the strength. Of these, 4 were affected with pulmonary, and 2 with cardiac disease, 2 with epilepsy, 1 with impaired vision, and 1 with chronic rheumatism.

Section III.

Mean Daily Sick.

Mean sick. The mean daily sick in the Mauritius throughout the year amounted to 61·15, or 48·76 per 1,000 of the strength. From this and the preceding data we deduce the average sickness to have been in the proportion of 17·80 days to each man serving, and the average duration of each case to have been 14·39 days. During the 19 years, 1818-36, the mean sick averaged 68 per 1,000, the sick time to each soldier 25 days, and the duration of each attack 20, so that with regard to all these, the preceding results show a marked improvement.

Section IV.

On the Influence of Age on the Mortality.

Mauritius.

Influence of age.

The returns of the 2nd Battalion 5th Regiment furnish the only available data on this subject, the 61st having been only a portion of the year in the Command. The following table shows the strength on 1st April, and the deaths throughout the year, arranged in quinquennial periods:—

Age	Under 20.	20—24.	25—29.	30—34.	35—40.	Total.
Strength	394	249	95	22	6	766
Deaths, including those of Invalids	4	6	1	..	2	13
Ratio per 1,000	11·63	24·09	10·53	..	333·3	16·97

The numbers are too few to justify any positive deductions, but we have recorded them here that they may be available on some future occasion.

Ceylon.

IX. On the Health of the Troops serving in the Island of Ceylon.

Section I.

Sickness and Mortality.

The force employed in Ceylon consisted of Royal Artillery, the 50th Foot, the Ceylon Rifle Regiment, and a corps of Gun Lascars.

I. White Troops.

The average strength of the white troops during the year was 913, the admissions into hospital amounted to 1,546 and the deaths to 29, being in the annual ratio of 1,693 and 31·76 per 1,000. During the ten years 1837–46, the admissions averaged 1,444 and the deaths 41·74 per 1,000, so that in 1859 the former were in excess of, but the latter one-fourth below the ratios of the previous period. To show accurately the mortality due to the climate of Ceylon, the deaths of three invalids must be added, which raise the total to 32, or 35·05 per 1,000 of the strength.

The diseases by which the admissions into hospital and deaths were caused will be found specified in Abstract No. XII of Appendix, from which the following table has been compiled:—

Ceylon.

	Strength, 913.				Annual ratio per 1,000.			
		Died.			1859.		1837–46.	
	Admitted.	At Ceylon.	Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
Class I.								
1. Miasmatic diseases ..	570	11	3	14	624·3	15·3	821·6	27·17
2. Enthetic „ ..	221	..	..	..	242·1	..	60·8	..
3. Dietic „ ..	5	..	..	..	5·5	..	3·6	·06
4. Parasitic „ ..	11	..	..	..	12·	..	·9	..
Class II.								
1. Diathetic diseases ..	8	..	..	..	8·8	..	9·8	·45
2. Tubercular „ ..	17	2	..	2	18·6	2·2	16·6	4·28
Class III.								
Diseases of the—								
1. Nervous system ..	56	3	..	3	61·3	3·3	27·8	2·66
2. Circulatory „ ..	17	..	..	..	18·6	..	4·7	·39
3. Respiratory „ ..	95	1	..	1	104·1	1·1	77·1	1·36
4. Digestive „ ..	213	9	..	9	233·3	9·86	151·8	4·73
5. Urinary „ ..	5	1	..	1	5·5	1·1	2·	..
6. Reproductive „ ..	1	..	..	..	1·1	..	1·3	..
7. Locomotive „ ..	3	..	..	..	3·3	..	1·4	·13
8. Integumentary „ ..	183	..	..	..	200·4	..	162·	·32
Class IV.								
4. Diseases of Nutrition ..	3	..	..	..	3·3	..	·1	·06
Class V.								
1. Accidents	121	1	..	1	132·5	1·1	92·5	·13
4. Suicide	..	1	..	1	..	1·1	..	..
6. Corporal Punishment ..	6	..	..	..	6·6	..	10·2	..
Diseases not stated ..	11	..	..	..	12·	..	..	..
Total	1,546	29	3	32	1693·3	35·06	1444·2	41·74

These results show a great diminution both in the admissions and deaths by miasmatic diseases, but a very considerable increase in diseases of the digestive organs, and also in the prevalence of venereal, points to which we shall refer more in detail in our observations on the principal classes of diseases.

Miasmatic Diseases.

		1859.	1837–46.
Annual ratio per 1000 of strength	Admitted	624·3	821·6
	Died at Ceylon ..	12·	27·17

Ceylon.

From this it appears that there has been a reduction of nearly one-fourth in the admissions, and more than a half in the deaths by these diseases. On subdividing the class the following results are obtained:—

	1859.		Annual Ratio per 1,000 of Strength. 1859.		1837—46.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eruptive Fevers	..	..	..	..	·3	·19
Paroxysmal „	74	1	81·	1·09	56·8	1·23
Continued „	69	..	75·6	..	169·7	2·20
Dysentery, Diarrhœa, and Cholera	286	9	313·2	9·86	340·9	23·35
Sore Throat	16	..	17·5	..	8·7	..
Ophthalmia	47	..	51·5	..	175·4	..
Rheumatism	78	1	85·4	1·09	68·2	·13

This table shows an increase in the admissions by paroxysmal fevers, sore throat, and rheumatism, but a decrease in all the others, most marked in ophthalmia and continued fevers. The reduction in the mortality has been chiefly in dysentery, diarrhœa, and cholera. The cause of this will be evident if we examine the relative prevalence of the various diseases included under this term, which has been as follows:—

	Ratio per 1,000 of Strength. Dysentery.		Diarrhœa.		Cholera.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
1859	96·4	8·76*	210·3	..	6·6	1·09
1837-46	135·1	13·04	186·7	1·49	19·1	8·82

* The deaths of the three invalids are not included in this ratio, as we have no information respecting the number who died under similar circumstances during the previous period.

Thus it appears that while the reduction in the prevalence of dysentery, diarrhœa and cholera, has not been very great, the type of disease has undergone a material change; dysentery and cholera, the two most fatal forms, having become much less prevalent, while diarrhœa has given rise even to more than the former average of admissions.

Continued fevers have prevailed to only half, and ophthalmia to less than one third of their former extent.

Enthetic Diseases (Venereal) have given rise to four times the former average of admissions, but no explanation is offered in the reports of the medical officers of any circumstances to which this can be attributed. *Ceylon.*

Tubercular Diseases. The mortality by these has been little more than half the previous average, but as the admissions continue fully as high as before, this may perhaps be merely an irregularity arising from the small numbers under observation.

Diseases of the Nervous System have been much in excess of the previous average, the increase being confined to inflammation of the ear (*otitis*) and *delirium tremens*. The latter disease has furnished more than double the previous average of admissions, the ratio being 21·9 against 9·44 per 1,000 of the strength. Of the 20 cases which occurred 19 were in the 50th Regiment, being in the ratio of 24·64 per 1,000 of the mean strength of that corps.

Diseases of the Digestive Organs show a very marked increase, the proportion of admissions having been 233, and of deaths 9·86 per 1,000, while in 1837-46 it only amounted to 152 and 1·36. The difference has been chiefly shown in inflammation of the liver, of which there were 118 cases and 8 deaths, being in the ratio of 129 and 8·76, while the average of the previous period was 49 and 3·70. In former statistical reports this disease was shown to be very prevalent and fatal, but we are unable to assign any reason for the great increase in 1859.

Corporal Punishment was the cause of 6 admissions, being in the proportion of 6·6 per 1,000 of the strength, or a reduction of one-third upon the previous average.

The numbers are too small to justify our going into much detail regarding the sickness and mortality at the different stations in the island, but the following table is submitted with a view to show the great improvement which has taken place at several of them, when compared with the results of the 17 years, 1820-36:—

				Ratio per 1,000 of Strength.		
				1859.		1820–36.
	Strength.	Admitted.	Died.	Admitted.	Died.	Died.
Colombo ..	445	746	9	1,676	20·22	51·9
Galle	78	127	1	1,628	12·82	23·
Trincomalee	171	389	13	2,275	76·02	91·4
Kandy	140	277	1	1,978	7·14	60·7

Ceylon.

Thus, with the exception of Trincomalee, there has been a very great reduction in the mortality of all the stations. At Kandy, this has been most marked in the deaths by remittent fever and dysentery. The high rate which still prevails at Trincomalee is kept up by dysentery and inflammation of the liver, the former having been the fatal disease in seven, and the latter in five, out of thirteen deaths.

II. Black Troops.

The average strength of the black troops in 1859 was 1,564; the admissions into hospital among them were 1,133, and the deaths 16, being in the annual ratio of 724 and 10·19 per 1,000. In the ten years 1837-46, the average amounted to 1,011 and 26·7, so that there has been a marked decrease both in the sickness and mortality.

The following table, compiled from Abstract No. XII of Appendix, shows the influence of the principal classes of diseases upon the black troops:—

	1859.				1837-46.	
	Strength, 1,564.		Ratio per 1,000.		Ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Class I.						
1. Miasmatic diseases ..	584	5	373·4	3·18	505·4	15·79
2. Enthetic „ ..	57	..	36·4	..	35·6	·15
3. Dietic „ ..	1	..	·6	..	·3	..
4. Parasitic „ ..	79	..	50·5	..	·2	..
Class II.						
1. Diathetic diseases ..	16	2	10·2	1·27	17·6	1·45
2. Tubercular	4	2	2·6	1·27	2·9	1·05
Class III. Diseases of the—						
1. Nervous system ..	11	1	7	·64	16·3	1·84
2. Circulatory „ ..	2	1	1·3	·64	·2	·05
3. Respiratory „ ..	48	1	30·7	·64	50·9	2·04
4. Digestive „ ..	32	1	20·5	·64	53·9	1·69
5. Urinary „ ..	..	..	..	..	1·2	·05
6. Reproductive „ ..	..	..	..	..	·7	..
7. Locomotive „ ..	..	..	..	..	·9	·05
8. Integumentary „ ..	217	..	138·8	..	253·3	·14
Class IV.						
4. Diseases of Nutrition ..	2	1	1·3	·64	·6	·32
Class V.						
1. Accidents	73	2	46·7	1·27	64·1	1·04
2. Battle	..	..	..	..	..	·95
4. Suicide	..	..	..	..	..	·05
6. Corporal Punishment ..	..	..	..	..	6·8	..
Diseases not stated	7	..	4·4	..	..	·05
Total	1,133	16	724·4	10·19	1010·9	26·71

Ceylon.

The most striking points in this table are the great reduction in the prevalence and mortality of miasmatic and the very low ratio of enthetic and of tubercular diseases. It will also be observed that diseases of the nervous and digestive systems, which were found to have increased greatly among the white, have not furnished half the previous average among the black troops.

In the miasmatic diseases the decrease in the admissions has been chiefly in eruptive fevers, continued fevers, and dysentery, diarrhœa and cholera, while there has been an increase, as in the case of the white troops, in paroxysmal fevers. The reduction in the mortality, however, has been almost entirely in dysentery, diarrhœa and cholera, the deaths by which formerly amounted to 11·45, but in 1859 were only 1·92 per 1,000.

The remarkable exemption from venereal disease among the black troops is explained by the large number of married men in the Ceylon Rifles, amounting to very nearly two-thirds of the whole, and by the fact, noted by the Medical Officer of the corps, that the soldier, if unmarried, has "at least one woman in his keeping, whom he styles his 'concubine,' and treats in every respect as his wife," and thus escapes the consequences of promiscuous intercourse.

There were no admissions by *delirium tremens*, either during the past year or the previous period of ten years, a circumstance accounted for by a large proportion of the men being Mahomedans, and forbidden by their religion from indulging in spirituous liquors. The reduction in the diseases of the digestive system has occurred in dyspepsia, colic, constipation, and inflammation of the liver. Of the latter, indeed, which was shown to have increased greatly among the white troops, not a single case occurred. There was no instance of corporal punishment among the black troops; the previous average was 6·8 per 1,000.

Section II.

On the Extent of Invaliding.

Invaliding.

In 1859 there were only two men discharged the service at Chatham, who had been invalided from Ceylon, one on account of weakly constitution, and the other of eye-disease.

Section III.

Mean Daily Sick.

Ceylon.

Mean sick.

The average number constantly sick of the white troops throughout the year amounted to 64·04 or 70·14 per 1,000 of the strength, from which we deduce the mean sick time to each soldier in the Command to have been 25·6 days, and the average duration of each case in hospital 15·12 days; results which correspond very closely with those obtained for the twenty years 1817-36.

The number constantly sick of the black troops was 39·85, which would give 9·3 days as the sick time to each soldier and 12·86 days as the duration of each case; but these results are probably affected by the large number of married men in the corps, and also by the number of small detachments where the men are not taken into hospital unless the disease is of so serious a nature as to require the man to be sent for treatment to head-quarters or the nearest large station.

Section IV.

Influence of Age on the Mortality.

Influence of age.

As no returns of the ages of the men serving in the 50th Regiment were forwarded to the War Office, our remarks must be confined to those of the Ceylon Rifles, the results of which are shown in the following table:—

Ages.	Strength.	Deaths.	Ratio of Deaths, per 1,000 of Strength.	Civil Population, England and Wales.
Under 20..	182	2	10·99	7·41
20–24	243	2	8·23	8·42
25–29	344	3	8·72	9·21
30–34	310	3	9·68	10·23
35–39	181	2	11·05	11·63
40 and upwards	69	1	14·49	13·55
Total	1,329	13	9·78	9·61

From this it appears that the mortality of the black troops in Ceylon has been rather lower than that of the general male population of England and Wales at corresponding ages, with the exception of those under twenty and above forty years of age, among whom the deaths have been in excess. There are no previous returns of the mortality of the black troops at different ages with which to compare these results.

X. On the Health of the Troops in the Australian Colonies.

Section I.

Sickness and Mortality.

In this Command are comprised Australia, including Victoria, New South Wales, South Australia, and Western Australia; Tasmania, and New Zealand. The force consisted of Royal Artillery and Engineers, the 1st Battalion 12th, the 40th, and 65th Regiments. The average strength of the troops, with the admissions into hospital and deaths during 1859, were as follows:— *Australian Colonies.*

	Average Strength.	Admitted.	Died	Rate per 1,000 of Strength.			
				1859.		1844–56.	
				Admitted.	Died.	Admitted.	Died.
Australia ..	1,380	913	14	661·5	10·1	..	..
Tasmania ..	334	139	5	416·1	15·	726	11·87
New Zealand ..	1,125	716	5	636·4	4·5	529	12·8

This table shows the rate of mortality to have been very low in New Zealand, but to have been above the usual average in Tasmania. The low ratio of admissions in the latter is attributable to the sick of a large detachment not being included in the returns. If the requisite deduction be made from the strength to compensate for this, the admissions amount to 530 per 1,000. It is probable that, owing to the number of detachments in all these colonies, the proportion of sickness among the troops is generally understated.

In addition to the deaths above recorded, one occurred on the passage home, and one at Chatham, among the invalids from Australia, which make the ratio of mortality 11·6 per 1,000 of the strength in that colony.

The diseases by which the admissions and deaths have been occasioned are stated in Abstract No. XIV of Appendix, from which the following table has been prepared:—

Class.	Order.	Diseases.	Australia. 1,380. Admitted.	Australia. 1,380. Died In Australia.	Australia. 1,380. Died Invalided.	Australia. 1,380. Total Deaths.	Australia. 1,380. Ratio p. 1,000. Admitted.	Australia. 1,380. Ratio p. 1,000. Died	Tasmania. 262 — 334. Admitted.	Tasmania. 262 — 334. Died.	Tasmania. 262 — 334. Ratio p. 1,000. Admitted.	Tasmania. 262 — 334. Ratio p. 1,000. Died.	Tasmania. 1839–55. Ratio. Admitted.	Tasmania. 1839–55. Ratio. Died.	New Zealand. 1,125 Admitted.	New Zealand. 1,125 Died.	New Zealand. 1,125 Ratio p. 1,000. Admitted.	New Zealand. 1,125 Ratio p. 1,000. Died.	New Zealand. 1846–55. Ratio p. 1,000. Admitted.	New Zealand. 1846–55. Ratio p. 1,000. Died.
I.	1	Miasmatic diseases	238	3	..	3	172·4	2·17	27	..	103·0	..	236·4	1·82	133	2	118·2	1·8	146·5	1·04
	2	Enthetic .. „ ..	165	..	..	..	119·5	..	29	..	110·7	..	79·4	..	52	..	46·2	..	31·	·07
	3	Dietic .. „ ..	1	..	..	..	·7	..	..	..	..	..	3·3	..	2	..	1·8	..	·1	·07
	4	Parasitic .. „ ..	..	..	..	..	..	..	..	..	..	..	·5	..	2	..	1·8	..	·4	
II.	1	Diathetic.. „ ..	20	1	..	1	14·4	·72	..	..	..	..	3·9	·11	14	..	12·4	..	5·8	·21
	2	Tubercular „ ..	22	4	2	6	15·9	4·35	3	2	11·5	6·	10·	3·92	8	..	7·1	..	9·5	3·41
		Diseases of the—																		
III.	1	Nervous system	31	2	..	2	21·4	1·45	1	..	3·8	..	13·5	·91	39	..	34·7	..	9·5	·90
	2	Circulatory „ ..	14	1	..	1	10·1	·72	3	1	11·5	3·	6·3	·57	12	1	10·7	·9	6·7	·62
	3	Respiratory „ ..	97	..	..	..	71·9	..	18	1	68·7	3·	118·2	·91	135	..	120·	..	67·9	1·25
	4	Digestive „ ..	69	1	..	1	50·0	·72	12	1	45·8	3·	37 6	·45	59	1	52·4	·9	54·	·49
	5	Urinary „ ..	6	..	..	..	4·3	..	1	..	3·8	..	2·3	·11	3	..	2·7	..	2·	·35
	6	Reproductive „ ..	1	..	..	..	·7	..	..	..	..	..	·3	..	3	..	2·7	..	·2	..
	7	Locomotive „ ..	..	..	..	..	..	..	..	..	..	..	·9	..	5	..	4·4	..	·5	..
	8	Integumentary „ ..	107	..	..	..	77·5	..	12	..	45·8	..	112·2	·28	98	..	87·1	..	103·1	·14
IV.	4	Disease of Nutrition	..	..	..	..	..	..	..	..	..	..	·1	..	1	..	·9	..	·1	..
V.	1	Accidents ..	105	2	..	2	76·	1·45	25	..	95·4	..	96·5	2·39	115	1	102·2	·9	68·8	2·22
	3	Homicide.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	·14
	4	Suicide	..	..	..	..	..	..	..	..	..	..	..	·34	..	..	..	..	..	.28
	6	Corp Pun ment	1	..	..	..	·7	..	1	..	3·8	..	3·4	..	..	..	..	..	3·3	..
		Diseases not stated	36	..	..	..	26·	..	7	..	26·7	..	7·2	·06	35	..	31·1	..	8·1	·42
		Total ..	913	14	2	16	661·5	11·58	139	5	530·5	15·	732·0	11·87	716	5	636·4	4·5	517·5	11·61

* It has been necessary to state the strength in this manner, as the deaths include those among all the troops in Tasmania, while the admissions among a large detachment, as already stated, have not been reported; the ratio per 1,000 admitted has therefore been calculated on a strength of 262, but that of the deaths upon 334.

The points most deserving of remark in this table are the low ratio of admissions by enthetic diseases (venereal) the comparative exemption from tubercular diseases, and the great amount of diseases of the nervous system, particularly in New Zealand. *Australian Colonies.*

Miasmatic Diseases have prevailed in Australia to the same extent as among the infantry at home, but in New Zealand have been about one-fourth less. The diseases, however, are somewhat differently distributed, as will be seen by the following table :—

	Australia.		Tasmania.		New Zealand.		Infantry at Home.
	Admitted.	Ratio per 1,000 of Strength.	Admitted.	Ratio per 1,000 of Strength.	Admitted.	Ratio per 1,000 of Strength.	Ratio per 1,000 Admitted.
Eruptive Fevers ..	..	..	..	..	..	..	4·1
Paroxysmal „ ..	..	..	..	..	..	..	3·
Continued „ ..	20	14·5	2	7·6	3	2·7	29·
Dysentery, Diarrhœa, and Cholera ..	35	25·4	1	3·8	30	26·7	17·1
Sore Throat	37	26·8	5	19·1	10	8·9	35·5
Ophthalmia	97	70·3	17	64·9	36	32·	27·1
Rheumatism	47	34·1	1	3·8	44	39·1	49·1

Thus it appears that the Australian Colonies have been quite free from eruptive and paroxysmal fevers, and that continued fevers have been very rare. On the other hand, diarrhœa in Australia and New Zealand, and ophthalmia in Australia and Tasmania, have considerably exceeded the average among troops in the United Kingdom. Rheumatism has given rise to only one admission in Tasmania, and in the other two colonies has been less common than at home. The reduction in the admissions by miasmatic diseases in Tasmania in 1859 compared with the previous period, has taken place in continued fevers, dysentery and diarrhœa, and rheumatism.

Diseases of the nervous system have been a very frequent cause of admission into hospital in New Zealand, but have not given rise to any deaths. Of 39 cases 7 were of *delirium tremens* and 9 of headache. Five cases of *delirium tremens* were admitted in Australia.

Corporal Punishment was inflicted only on one occasion in Australia, and one in Tasmania. It was not resorted to in New Zealand during the course of the year.

Section II.

On the Extent of Invaliding.

Australian Colonies.

Invaliding.

The details of invaliding have not been kept separate for each of the colonies, but the number discharged at Chatham in 1859 of those sent home from them collectively, and the causes of disability, were as follows:—

Weakly Constitution	1
Eye Diseases	5
Wounds	1
Mental Disease	1
Epilepsy	3
Pulmonary Disease	6
Cardiac „	2
Rheumatism	4
Worn out	5
Total	28
Ratio per 1,000 of mean strength	9·86

From this it appears that pulmonary disease has been the most frequent cause of invaliding, giving rise, however, to a loss to the service of only 2·1 per 1,000. Next to it in frequency stand eye diseases; but considering the extent to which ophthalmia has prevailed in these colonies, the proportion finally discharged the service on account of them does not appear great.

Section III.

Mean Daily Sick.

Mean sick.

The average number constantly sick in Australia and Tasmania during the year 1859 was 55·51, or in the ratio of 33·81 per 1,000, and in New Zealand, 23·04 or 20·48 per 1,000. The latter ratio is so low as to lead to the supposition that the sick of some detachments may have been omitted, but it perhaps depended to some extent also on the very small proportion of venereal among the troops. From these figures, combined with the data in the preceding pages, we find the mean sick time to each soldier to have been 12·34 days in Australia and Tasmania, and 7·47 in New Zealand; and the average duration of each case of sickness to have been 19·26 days in the former, and 11·75 in the latter.

Section IV.

On the Influence of Age on the Mortality.

Australian Colonies.

Influence of age.

No returns of the ages of the men serving in the 40th Regiment having been received, the information under this head must be derived from those of the 1st Battalion 12th and the 65th Regiments, of which the following is a summary :—

	Under 20.		20—24		25—29		30—34		35—39		40 and upwards.		All Ages.	
	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.
1st Battalion 12th Regiment ..	5	..	222	..	138	2	79	2	95	3	29	1	568	6
65th Regiment	11	..	294	1	296	1	346	1	93	2	13	..	1053	5
Total	16	..	516	1	434	3	425	3	186	5	42	1	1621	13
Ratio per 1,000 of strength ..	..		1·94		6·91		7·06		26·59		23·81		8·02	
Civil Population at same Ages in healthy districts of England and Wales	5·83		7·30		7·93		8·36		9·		9·86		8·00	

From this table it will be seen that the mortality under 35 years of age in these two regiments, and including the deaths among the invalids, has been rather below that of the civil population in the healthy districts of England, and that the total mortality per 1,000 has been exactly the same as would have occurred in those districts, if the numbers living at each quinquennial period had been in the same proportions as in these corps.

XI. On the Health of the Troops serving in China.

Section I.

Sickness and Mortality.

China.

The European troops in China consisted, in the beginning of 1859, of Royal Artillery and Engineers, the 2nd Battalion 1st Foot, and a detachment of the Medical Staff Corps. In the middle of October the 67th Regiment arrived from Calcutta, and in November and December the 1st Battalion 3rd Regiment, from the same place. The native troops consisted of Gun Lascars, the 12th Madras Native Infantry, and the 47th, 65th, and 70th Bengal Native Infantry Regiments.

I. White Troops.

The average strength of the European troops during the year was 1,550; among whom the admissions into hospital amounted to 4,314, and the deaths to 65, being in the ratio of 2,783, and 41·93 per 1,000 of the strength. But in addition to this mortality, 27 deaths occurred among invalids on their passage home, which increase the ratio to 59·35 per 1,000. The diseases by which the admissions and deaths were caused are detailed in Abstract No. XIV of Appendix, from which the following table has been compiled:—

China.

Strength, 1,550.		Deaths.			Ratio per 1,000.	
Diseases.	Admitted.	In China.	Invalids.	Total.	Admitted.	Died.
Class I.						
1. Miasmatic diseases ..	2,740	47	19	66	1767·8	42·58
2. Enthetic „ ..	538	..	..	..	347·1	..
3. Dietic .. „ ..	2	..	..	..	1·3	..
4. Parasitic „ ..	11	..	..	..	7·1	..
Class II.						
1. Diathetic Diseases ..	16	..	..	..	10·3	..
2. Tubercular „ ..	15	1	7	8	9·7	5·16
Class III.						
Diseases of the—						
1. Nervous system ..	76	3	..	3	49·	1·93
2. Circulatory „ ..	30	1	..	1	19·4	·64
3. Respiratory „ ..	160	5	..	5	103·2	3·23
4. Digestive „ ..	231	4	1	5	149·	3·23
5. Urinary „ ..	7	..	..	..	4·5	..
6. Reproductive „ ..	7	..	..	..	4·5	..
7. Locomotive „ ..	7	..	..	..	4·5	..
8. Integumentary „ ..	244	..	..	..	157·4	..
Class IV.						
4. Diseases of Nutrition..	42	..	..	..	27·1	..
Class V.						
1. Accidents	103	2	..	2	66·5	1·29
6. Corporal Punishment	5	..	..	..	3·2	..
Diseases not stated ..	80	2	..	2	51·6	1·29
Total	4,314	65	27	92	2783·2	59·35

This table shows that nearly two-thirds of the admissions and deaths have been occasioned by miasmatic diseases. On subdividing the class, the following results are obtained:—

	Admitted.	Died.	Annual Ratio per 1,000.	
			Admitted.	Died.
Eruptive Fevers	2	..	1·3	..
Paroxysmal „	1,588	14	1024·5	9·03
Continued „	370	8	238·7	5·16
Dysentery, Diarrhœa and Cholera	445	43	287·1	27·74
Sore Throat	7	..	4·5	..
Ophthalmia	200	..	129·	..
Rheumatism	113	..	72·9	..

China. From this it appears that paroxysmal fevers have been the cause of much the greatest amount of sickness, the admissions by them somewhat exceeding the total number of troops serving in the colony; 1,118 of the cases were reported as intermittent and 470 as remittent fevers. Dysentery and diarrhœa have been the most fatal diseases, having given rise to nearly half the mortality in the command.

Enthetic Diseases have occasioned a considerable amount of inefficiency, the admissions by them having been as high as 347 per 1,000.

Tubercular Diseases have not been very prevalent, but the deaths, including those of invalids on their passage home, have amounted to 5·16, being considerably in excess of the ratio by the same diseases in Ceylon or India.

Diseases of the Nervous System have been the cause of a large number of admissions, and of these 31 have been on account of *delirium tremens*, being in the ratio of 20 per 1,000 of the strength. The prevalence of this disease varied greatly in the different corps, 3 cases having occurred in the 67th Regiment, 4 in the Royal Engineers, 5 in the 1st Foot, and 19 in the Royal Artillery, the latter being in the very high proportion of 64·8 per 1,000 of the strength.

None of the other classes of diseases appear to require comment.

Corporal Punishment was the cause of 5 admissions only, and of these 4 were in the 67th Regiment during the short period it was in the Command, and the other was in the 3rd Regiment, which was also one of the corps that arrived from India towards the end of the year.

II. Native Troops.

The average strength of the native troops was 2,009, among whom the admissions into hospital amounted to 3,283, and the deaths to 109, being in the annual ratio of 1,634, and 53·73 per 1,000. We have no means of ascertaining whether any deaths occurred among the invalids from the native corps on the passage to India, or previous to their discharge from the service there.

The following table, compiled from Abstract No. XIV of Appendix, shows the principal classes of diseases by which the admissions into hospital and deaths were caused:—

	Native Troops.				European Troops.	
	Strength, 2,009.		Ratio per 1,000.		Ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died (exclusive of Invalids).
Class I.						
1. Miasmatic diseases	2,385	87	1187·2	43·3	1767·8	30·32
2. Enthetic „ ..	150	..	74·7	..	347·1	..
3. Dietic .. „ ..	10	..	5·	..	1·3	..
4. Parasitic „ ..	19	..	9·4	..	7·1	..
Class II.						
1. Diathetic diseases ..	22	2	10·9	·99	10·3	..
2. Tubercular „ ..	8	1	3·9	·49	9·7	·64
Class III.						
Diseases of the—						
1. Nervous system	27	3	13·4	1·49	49·	1·93
2. Circulatory „	4	..	2·	..	19·4	·64
3. Respiratory „	150	4	74·7	1·98	103·2	3·23
4. Digestive „	98	3	48·8	1·49	149·	2·59
5. Urinary „	5	..	2·5	..	4·5	..
6. Reproductive „	7	..	3·5	..	4·5	..
7. Locomotive „	3	..	1·5	..	4·5	..
8. Integumentary „	183	2	91·1	·99	157·4	..
Class IV.						
4. Diseases of Nutrition	145	7	72·2	3·	27·1	..
Class V.						
1. Accidents	60	..	29·9	..	66·5	1·29
6. Corporal Punishment	1	..	·5	..	3·2	..
Diseases not stated ..	6	..	3·	..	51·6	1·29
Total ..	3,283	109	1634·2	53·73	2783.2	41·93

This table shows the admissions among the native troops by miasmatic and enthetic diseases and diseases of the respiratory system to have been much lower, but the deaths by miasmatic diseases, exclusive of those among the invalids, to have been considerably higher than in the European portion of the force. If we analyse the effects of this class of diseases upon the two bodies of troops, we obtain the following results:—

	Native Troops.				European Troops.	
			Ratio per 1,000.		Ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died (exclusive of Invalids).
Eruptive Fevers ..	2	..	1·	..	1·3	..
Paroxysmal „ ..	1,788	40	890·	19·91	1024·5	7·74
Continued „ ..	44	7	21·9	3·48	238·7	5·16
Dysentery, Diarrhœa, &c.	362	38	180·2	18·91	287·1	16·77
Sore Throat	1	..	·5	..	4·5	..
Ophthalmia	34	..	16·9	..	129·	..
Rheumatism	145	1	72·2	·49	72·9	..

China. From this it appears that, though paroxysmal fevers have been rather less prevalent among the native troops, they have given rise to more than double the mortality of the Europeans from the same cause. The natives have enjoyed a great exemption from fever of the continued type, and from ophthalmia; and dysentery and diarrhœa have been much less prevalent, but rather more fatal than among the Europeans.

Enthetic Diseases have been a source of comparatively little inefficiency, the proportion per 1,000 of the strength being only 74·7, while among the Europeans it was 347.

Tubercular Diseases have also been rare, the admissions having been only 3·9, and the deaths ·49 per 1,000. The admissions among the Europeans were nearly thrice as high as, but the deaths, exclusive of those of invalids, were very little above, those of the natives.

Diseases of the Nervous System have been only one-fourth as prevalent among the native as the European troops, the difference being almost entirely in the admissions for headache and *delirium tremens*. Of the latter disease there has not been a single case among the native troops.

Diseases of the Digestive System have also been much less prevalent, the difference being shown chiefly in dyspepsia, inflammation of the liver, and hæmorrhoids.

Corporal Punishment.—There was only one admission into hospital on this account. It occurred in the 65th Bengal Native Infantry, in the last quarter of the year. It may be remembered that all the cases among the European troops occurred during the same quarter, and in regiments which had just arrived from India.

Section II.

On the Extent of Invaliding.

Invaliding. The number of invalids who arrived in this country from China was 83, being in the ratio of 53½ per 1,000 of the strength. Of these, some were sent to join the depôts of their regiments and others were still at Chatham at the close of the year, but we are unable to state the numbers in each class.

There were only 13 finally discharged the service at Chatham, in 1859, being in the ratio of 8·4 per 1,000 of the strength. The disabilities on account of which they were discharged were as follows:—

Wounds in action	2	*China.*
Ordinary Wounds	1	
Hernia	1	Invaliding.
Mental Disease	1	
Epilepsy	1	
Pulmonary Disease	5	
Cardiac „	2	
Total	13	

The number discharged for pulmonary consumption, added to the deaths in China and among invalids on the passage home, shows a loss to the service by that disease of 7·73, a result which affords strong presumptive evidence against the theory of the antagonism between intermittent fever and phthisis. Had that theory been correct, the antagonism would surely have been developed to its full extent at a station where intermittent fever prevails to the extent of 720 per 1,000 of the force, or, in other words, where the admissions into hospital by it amount in number to nearly three-fourths of the men employed.

Section III.

Mean Daily Sick.

The average daily sick throughout the year amounted, among the European troops, to 200·5, and among the native to 178·1, being in the ratio of 129·35 and 88·65 per 1,000 of the strength. Hence we deduce the average sick time to each soldier, and the average duration of each case, to have been as follows:— Mean sick.

	Average sick time to each man.	Average duration of each case.
	Days.	Days.
European Troops	47·21	16·96
Native „	32·36	19·80

Thus it appears, that while the number constantly sick, and the sick time to each soldier, are higher among the Europeans, the duration of disease is greater among the natives.

Section IV.

Influence of Age on the Mortality.

In consequence of the returns on this subject being defective, we are uuable to submit the usual tables. Influence of age.

APPENDIX TO STATISTICAL REPORT FOR 1859.

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APPENDIX No. I.

TRACT, showing the Admissions into Hospital and Deaths among the Troops serving in the United Kingdom in the year 1859.

	Household Cavalry.		Dragoon Gds. and Dragoons		Royal Artillery.		Royal Engineers		Military Train.		Foot Guards.		Infantry.		Depôt Battns.	
ngth	1,213		8,059		11,508		1,243		1,139		5,939		19,621		22,993	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
motic Diseases.																
. Miasmatic:																
ola	1	..	27	2	76	1	5	..	6	..	11	..	16	2	33	2
cella	5	..	3	..	1	..	..	..	..	..	..	..	8	..	10	..
illi	2	..	..	..	24	..	1	..	..	..	2	..	27	..	31	1
latina	1	..	6	2	13	2	..	..	1	..	31	..	30	2	35	2
atheria	..	..	4	..	..	..	..	..	..	..	..	..	8	..	..	..
titis	1	..	1	..	2	..	..	..	2	..	..	..	7	..	3	..
illitis	33	..	207	..	539	..	74	..	34	..	136	..	677	..	1073	1
nche Trachealis	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
enza	..	..	7	..	4	..	..	..	..	..	..	..	19	..	87	..
ipelas	2	..	16	..	45	1	..	..	3	..	5	1	45	4	108	2
nteria Acuta ..	..	..	3	..	22	..	..	..	1	..	1	..	10	..	8	..
,, Chronica..	..	..	1	..	8	..	5	..	..	..	..	..	3	..	57	1
rhœa	41	..	181	..	218	..	33	..	19	..	195	..	322	..	433	1
era Biliosa ..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	2	1
is Intermittens	..	..	11	..	255	..	35	..	..	..	19	..	58	..	335	..
, Remittens ..	..	..	1	..	14	..	1	..	..	..	..	..	..	..	13	..
, Typhoides ..	..	..	..	..	..	..	..	..	..	..	4	..	1	..	..	..
, Typhus ..	..	..	..	..	4	1	..	..	..	..	4	3	3	1	12	6
, Continua ..	17	..	224	3	295	3	66	..	32	1	187	2	566	12	988	17
unculus	..	..	31	..	108	..	73	..	..	..	5	..	2	..	18	..
nia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
hrax	1	..	8	..	..	..	..	..	..	..	1	..	1	..	4	..
thalmia	5	..	133	..	244	..	18	..	30	..	61	..	531	..	813	..
um. Acutus ..	37	..	235	..	389	..	82	..	47	..	175	..	563	1	903	3
, Chron. ..	3	..	141	..	253	1	7	..	19	..	13	..	400	..	601	1
cinia	..	..	16	..	97	..	1	..	1	..	..	..	2	..	105	..
2. Enthetic:																
hilis Primaria ..	54	..	1088	..	2613	..	179	..	245	..	944	..	2879	..	2896	..
,, Secundaria .	14	..	338	..	554	..	33	..	137	..	199	..	627	..	473	1
us Penis	..	..	240	..	125	..	7	..	35	..	160	..	441	..	179	..
hexia Syphil. ..	..	..	..	..	..	..	..	..	14	1	..	..	5	..	2	..
s Syphilitica ..	..	..	15	..	22	..	1	..	8	..	3	..	24	..	44	..
o	22	..	377	..	678	..	78	..	62	..	183	..	778	..	917	..
morrhœa	38	..	1002	..	2271	..	253	..	125	..	392	..	2566	..	4066	..
mosis, &c. ..	1	..	5	..	6	..	1	..	3	..	3	..	43	..	37	..
hitis (Gonorr.)..	13	..	117	..	220	..	25	..	23	..	90	..	340	..	475	..
ctura Urethræ ..	3	..	21	..	28	1	2	..	6	..	12	..	28	..	43	1
rucæ	1	..	41	..	58	..	3	..	3	..	21	..	106	..	61	..
3. Dietic:																
rbutus	..	..	3	..	1	..	1	..	..	..	..	..	11	..	23	..
pura	..	..	3	..	..	..	..	..	..	..	..	..	..	..	2	..
nchocele	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..
riositas	..	..	4	..	4	..	..	..	3	1	2	..	13	..	15	1

Appendix No. I.—*continued.*

	Household Cavalry.		Dragoon Gds. and Dragoons		Royal Artillery.		Royal Engineers		Military Train.		Foot Guards.		Infantry.		I B
Strength	1,213		8,059		11,508		1,243		1,139		5,939		19,621		22
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.
4. Parasitic:															
Porrigo	..	..	..	..	..	..	..	..	..	..	2	..	28	..	2
Scabies	4	..	104	..	112	..	4	..	52	..	96	..	490	..	140
Tænia Solium	..	..	1	..	..	..	..	..	..	..	1	..	13	..	..
Ascaris Lumbricoides	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Dracunculus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Vermes	..	..	..	..	6	..	..	..	1	..	1	..	1	..	1
Pediculi	..	..	..	..	2	..	..	..	..	..	..	..	..	..	
II. *Constitutional Diseases.*															
1. Diathetic:															
Podagra	4	..	2	..	1	..	..	..	..	..	..	..	..	..	..
Lumbago	5	..	13	..	38	..	9	..	..	..	3	..	29	..	3
Ischias	..	..	2	..	4	..	..	..	..	..	..	..	2	..	
Anæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Anasarca	1	..	7	..	16	..	..	..	2	..	4	..	7	..	2
Scirrhoma Pylori ..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..
Lupus	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
2. Tubercular:															
Scrofula	..	..	22	..	48	..	9	..	6	..	14	..	86	..	5
Abscessus Psoanus ..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..
Morbus Coxarius ..	..	..	..	..	4	1	..	..	..	..	..	..	2	2	
Phthisis Pulmon: ..	6	4	59	25	136	41	12	5	2	1	67	28	122	46	23
Hæmoptysis	3	..	13	2	36	..	4	..	3	..	11	..	34	1	6
Morbus Spinalis ..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..
III. *Local Diseases.*															
1. Nervous System:															
Meningitis	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..
Encephalitis	..	..	..	..	1	1	..	..	1	1	..	..	1	1	
Apoplexia	2	..	2	1	5	4	..	..	..	..	2	1	5	4	1
Paralysis	..	..	7	3	23	1	8	1	6	..	8	1	7	1	3
Delirium Tremens ..	6	..	16	2	30	1	7	..	..	..	2	..	32	2	10
Mania	..	..	3	..	17	1	..	..	..	..	1	..	3	..	
Amentia	..	..	4	..	4	..	..	..	3	..	2	..	12	..	3
Epilepsia	..	..	30	..	59	..	3	..	1	..	44	..	48	1	12
Chorea et Hysteria ..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	
Cephalæa et Vertigo.	..	..	16	..	9	..	1	..	4	..	6	..	13	..	3
Tetanus	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..
Hydrophobia	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..
Neuralgia	..	..	1	..	8	..	1	..	1	..	2	..	7	..	1
Odontalgia	2	..	2	..	2	..	1	..	..	..	..	..	5	..	1
Dysecœa	..	..	5	..	3	..	1	..	4	..	4	..	7	..	
Otitis	..	..	9	..	52	..	13	..	4	..	14	..	77	..	12
Amaurosis	..	..	1	..	4	..	..	..	1	..	..	..	..	..	
Strabismus	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
Cataractes	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
2. Circulatory System:															
Carditis	..	..	10	3	17	..	2	1	2	..	1	..	18	3	22
Pericarditis	..	..	..	..	..	..	..	..	3	..	2	1	7	2	18
Hypertrophia cordis .	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Morbus Cordis ..	..	..	16	1	99	3	2	..	5	1	8	2	74	7	172

Appendix No. I.—*continued.*

	Household Cavalry.		Dragoon Gds. and Dragoons		Royal Artillery.		Royal Engineers		Military Train.		Foot Guards.		Infantry.		Depôt Battns.	
	1,213		8,059		11,508		1,243		1,139		5,939		19,621		22,993	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
io Cordis	..	..	1	..	7	..	..	..	3	..	1	..	16	..	8	1
ma Aortæ	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..
	1	1	3	1	4	2	..	..	..	..	1	1	1	..	8	4
Pectoris	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
s	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
	..	..	2	..	10	..	..	..	2	..	..	..	16	..	17	..
	4	..	..	..	..	..	..	..	..	..	..	..	3	..	1	..
rhagia	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..
espiratory ystem:																
tis	1	1	1	..	..	..	..	..	..	..	1	1	3	1	2	1
itis Acuta	73	1	536	1	865	3	130	..	120	..	416	1	1445	5	2280	14
Chronica	2	..	68	..	201	..	13	..	3	..	15	..	230	5	343	14
s	4	..	9	..	39	..	..	..	5	..	10	1	36	..	96	..
horax	..	..	3	..	..	..	..	..	..	..	..	..	1	1	3	1
onia	2	1	37	3	30	2	3	1	4	..	19	1	102	9	123	21
cia Pulm:	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
et Dyspnœa.	..	..	6	1	4	..	4	..	..	..	2	..	19	..	42	..
sema	..	..	..	..	6	..	..	..	..	..	..	..	..	..	..	..
is	..	..	2	..	1	..	..	..	..	..	1	..	11	..	7	..
ynia	..	..	4	..	17	..	5	..	..	..	..	..	2	..	13	..
stive System:																
gitis	..	..	12	..	..	..	..	..	..	..	..	..	..	..	6	..
itis	..	..	1	1	2	..	1	..	..	..	..	..	7	4	4	1
is	..	..	1	..	6	1	..	..	..	..	..	..	4	..	6	1
is	..	1	1	..	5	..	..	..	..	..	1	1	1	1	4	..
tio	..	..	6	..	7	..	..	..	..	..	6	..	39	..	65	..
sia	12	..	65	..	125	..	5	..	7	..	57	..	225	..	285	1
	10	..	12	1	45	..	18	..	3	..	18	..	59	..	69	..
emesis	..	..	1	..	1	..	4	..	..	..	..	..	4	..	6	2
rhois	2	..	45	..	53	..	..	..	4	..	7	..	72	..	122	..
Inguinalis	1	..	6	..	17	..	..	..	1	..	11	..	31	..	14	..
Femoralis	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
in ano	2	..	6	..	17	..	2	..	..	..	2	..	8	..	20	..
us ani	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..
is	..	..	..	..	2	..	..	..	..	..	..	..	..	..	2	..
tis Acuta	..	..	6	..	18	..	..	..	1	..	1	..	9	..	35	..
Chronica	..	..	3	..	25	..	1	..	..	..	1	..	16	..	80	12
	7	..	21	..	66	..	2	..	4	..	17	1	76	2	79	1
	..	..	2	2	2	2	..	..	..	..	1	1	7	1	13	1
	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
is	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
lgia	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..
nary System:																
tis	..	..	3	..	5	..	..	..	..	..	..	..	6	2	4	..
a	..	..	..	..	..	..	..	..	1	1	1	1	1	1	2	1
ia et Dysuria	..	..	..	..	5	..	..	..	..	..	..	..	1	..	..	..
is	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
turia	..	..	1	..	4	..	..	..	2	..	1	..	1	..	5	..
is	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
us Vesicæ	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..
Renalis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..

Appendix No. I.—*continued.*

Diseases.	Household Cavalry.		Dragoon Gds. and Dragoons		Royal Artillery.		Royal Engineers		Military Train.		Foot Guards.		Infantry.		Depôt Batts.	
Strength	1,213		8,059		11,508		1,243		1,139		5,939		19,621		22,993	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Cystitis	..	..	2	1	2	..	..	..	..	..	1	..	1	..	..	..
Fistula in Perineo ..	..	..	1	..	..	..	..	..	..	..	..	..	4	..	4	..
Diabetes	1	1	..	..	3	..	..	..	..	..	..	..	1	..	3	..
Dysuria	..	..	1	..	..	..	1	..	1	..	..	..	4	..	4	..
Enuresis	..	..	4	..	2	..	1	..	1	..	1	..	9	..	24	..
6. Reproductive System:																
Varicocele	..	..	2	..	1	..	..	..	..	..	..	..	8	..	5	..
Hydrocele	1	..	8	..	10	..	1	..	..	..	8	..	6	..	6	..
Orchitis (not Gon:)	..	..	12	..	..	..	1	..	..	..	..	..	..	..	18	..
Sarcocele	..	..	..	..	12	..	..	..	..	..	..	..	..	..	3	..
Fungus Scroti	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Urethritis	..	..	1	..	..	..	..	..	..	..	..	..	4	..	..	..
Spermatorrhœa ..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..
Hypospadias	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
7. Locomotive System:																
Arthritis	..	..	3	..	6	..	1	..	..	..	..	..	24	1	9	..
Hydrarthrus	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..
Synovitis	..	..	..	..	13	..	..	..	..	..	..	..	11	..	17	..
Contractura	..	..	2	..	..	..	2	..	..	..	1	..	1	..	11	..
Periostitis	..	..	8	..	6	..	..	..	2	..	2	..	4	..	3	..
Caries	..	..	1	..	2	..	..	..	..	..	..	..	1	..	2	..
Necrosis	..	..	2	..	..	..	..	..	1	..	1	..	3	..	8	..
8. Integumentary System:																
Urticaria	1	..	2	..	2	..	..	..	3	..	4	..	7	..	16	..
Eczema	3	..	15	..	19	..	..	..	1	..	9	..	68	..	114	..
Herpes	1	..	6	..	..	..	..	..	1	..	2	..	23	..	47	..
Impetigo	..	..	..	..	..	..	..	..	2	..	6	..	44	..	44	..
Lepra	..	..	1	..	..	..	..	..	3	..	..	..	..	..	14	..
Psoriasis	..	..	19	..	..	..	..	..	..	..	3	..	41	..	85	..
Lichen	..	..	..	..	..	..	..	..	..	..	..	..	4	..	12	..
Acne	..	..	3	..	..	..	..	..	..	..	2	..	8	..	5	..
Roseola	..	..	1	..	..	..	..	..	..	..	..	..	2	..	..	..
Morbi Cutis	3	..	20	..	336	..	8	..	10	..	23	..	141	..	..	..
Phlegmon et Absc:	75	..	831	1	1003	2	167	..	86	..	420	1	1513	..	1762	3
Paronychia	2	..	49	..	58	..	1	..	4	..	8	..	43	..	57	..
Ulcus	7	..	343	..	474	..	21	..	71	..	106	..	592	..	805	..
Pernio	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Tumores	..	..	6	1	7	..	1	..	1	..	..	..	26	..	17	..
Rupia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Prurigo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..
Tinea Capitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	..
IV. *Developmental Diseases.* 4. Diseases of Nutrition:																
Cachexia	1	..	..	..	3	..	..	..	..	..	..	..	5	..	..	..
Debilitas	2	..	3	..	78	..	17	..	..	..	8	..	44	..	22	..

Appendix No. I.—*continued.*

	Household Cavalry.		Dragoon Gds. and Dragoons		Royal Artillery.		Royal Engineers		Military Train.		Foot Guards.		Infantry.		Depôt Battns.	
Strength	1,213		8,059		11,508		1,243		1,139		5,939		19,621		22,993	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
V. *Violent Deaths or Diseases.*																
1. Accidental:																
Ambustio	1	..	14	..	27	..	4	..	3	..	16	..	69	..	65	..
Gelatio	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
Insolatio	..	..	..	..	8	1	..	..	..	..	..	..	..	..	..	..
Submersio	..	..	..	1	3	4	..	1	..	..	..	3	2	7	..	10
Asphyxia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fractura	6	..	43	..	52	3	6	..	8	..	10	..	59	2	62	4
Amputatio	..	..	1	..	5	..	..	..	..	..	..	..	1	1	2	..
Contusio	60	..	447	..	578	1	46	..	49	..	85	..	476	1	703	..
Commotio	..	..	..	..	1	..	..	..	..	..	..	..	2	..	3	..
Compressio Cerebri ..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..
Vulnus Sclopetarium	..	..	1	..	3	..	7	..	1	..	..	..	7	1	37	..
„ Incisum ..	8	..	119	..	244	..	13	..	22	..	91	..	249	..	268	..
Luxatura	2	..	16	..	9	..	2	..	1	..	..	..	8	..	10	..
Subluxatio	11	..	112	..	191	..	26	..	14	..	77	..	316	..	280	..
Vesiculæ Pedis ..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Par Vias Ferreas ..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	1
4. Suicidal:																
Submersio	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	.
Suspendium	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..
Vulnus Sclopetarium	..	..	1	4	..	1	..	..	..	..	..	..	..	2	..	1
„ Incisum ..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1
Venenatio	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..
Suicidium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6
6. Punitus	..	..	40	..	82	..	..	..	21	..	10	..	107	..	160	..
Not stated																
Returned as Observatio	19	..	33	..	100	..	4	..	12	..	63	..	214	..	417	..
Total	653	10	7908	64	14,877	92	1579	9	1439	7	4701	54	18,915	149	26,421	311

APPENDIX No. II.

ABSTRACT, showing the Average Daily Sick among the Troops serving in the United Kingdom during the year 1859.

Cavalry.

Household Cavalry	1st Life Guards	9·30
	2nd „	13·
	Royal Horse Guards	12·51
		34·81
Dragoon Guards and Dragoons	4th Dragoon Guards	38·
	5th „	24·
	1st Dragoons	29·
	2nd „	26·33
	3rd Light Dragoons	49·54
	4th „	30·
	5th Lancers	31·30
	10th Hussars	29·50
	11th „	25·16
	13th Light Dragoons	30·
	15th Hussars	44·11
	16th Lancers	20·12
	18th Hussars	35·
		412·06
Military Train	Military Train, 3rd Battalion	21·6
	„ 4th „	20·
	„ 5th „	16·2
	„ 6th „	24·
		81·8

Infantry.

Foot Guards	Grenadier Guards	119·
	Coldstream Guards	94·90
	Scots Fusilier Guards	93·52
		307·42
Infantry of the Line	9th Foot, 1st Battalion	48·
	11th „ „	65·94
	„ „ 2nd Battalion	56·22
	12th „ „	35·13
	14th „ „	37·
	15th „ 1st Battalion	42·
	16th „ „	39·38
	„ „ 2nd Battalion	40·
	17th „ „	39·
	18th „ „	52·
	19th „ „	52·35
	20th „ „	42·
	21st „ „	42·44
	22nd „ 1st Battalion	21·50
	24th „ 2nd Battalion	51·17
	30th „	24·90
	36th „	53·45
	47th „	35·17
	55th „	42·22
	60th „ 4th Battalion	53·77
	76th „	41·50
	96th „	38·39
	Rifle Brigade, 1st Battalion	45·44
		998·97

APPENDIX No. III.

ABSTRACT, showing the Ages of the Troops serving in the United Kingdom, and the Deaths at each Age, during the Year 1859.

Corps.		Under 20 Years.		20—24.		25—29.		30—34.		35—40.		40 & upwards.		Total.	
		Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength	Died.
Household Cavalry.	1st Life Guards	30	..	98	1	103	..	68	1	67	2	46	1	412	5
	2nd „ „	25	..	86	..	90	..	81	1	67	..	49	1	398	2
	Royal Horse Guards	28	..	112	..	99	2	72	..	52	1	38	..	401	3
		83	..	296	1	292	2	221	2	186	3	133	2	1,211	10
Dragoon Guards and Dragoons.	4th Dragoon Guards	134	2	293	..	115	4	49	..	33	1	21	..	645	7
	5th „ „	76	..	358	..	100	1	38	..	33	..	13	..	618	1
	1st Dragoons	104	1	294	2	110	1	58	1	34	..	20	..	620	5
	2nd „	124	..	290	1	138	2	39	1	19	1	10	..	620	5
	3rd Light Dragoons	296	1	103	3	126	1	62	2	33	..	6	..	626	7
	4th „ „	100	1	294	..	150	3	46	2	19	1	31	..	640	7
	5th Lancers	418	..	142	..	46	1	14	..	5	1	2	..	627	2
	10th Hussars	152	..	209	..	107	1	104	..	38	..	10	..	620	1
	11th Hussars	147	2	336	3	84	..	30	2	9	..	20	1	626	8
	13th Light Dragoons	172	1	272	1	95	..	47	..	24	..	11	1	621	3
	15th Hussars	155	1	312	2	57	1	42	..	29	1	28	1	623	6
	16th Lancers	98	..	295	1	104	1	46	1	30	..	52	5	625	8
	18th Hussars	193	2	306	1	80	1	25	..	9	..	8	..	621	4
		2,169	11	3,504	14	1,312	17	600	9	315	5	232	8	8,132	64

Appendix No. III.—*continued.*

Corps.		Under 20 Years.		20—24.		25—29.		30—34.		35—40.		40 & upwards.		Total.	
		Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.
Military Train.	3rd Battalion	237	..	61	2	12	..	4	..	5	1	3	..	322	3
	4th „	35	..	214	..	47	..	12	..	8	..	6	..	322	..
	5th „	45	..	197	3	56	..	13	..	6	..	1	..	318	3
	6th „	43	..	181	..	66	..	18	1	8	..	6	..	322	1
		360	..	653	5	181	..	47	1	27	1	16	..	1,284	7
Foot Guards.	Grenadier Guards .. 1st Battalion	90	1	459	7	193	3	66	2	43	5	21	1	872	19
	Grenadier Guards .. 2nd „ ..	86		505		152		40		40		8		831	
	Grenadier Guards .. 3rd „ ..	116		244		322		86		62		18		848	
	Coldstream Guards.. 1st „ ..	110	4	338	10	280	7	84	1	48	2	17	..	877	24
	Coldstream Guards.. 2nd „ ..	74		484		150		57		47		16		828	
	Scots Fusilier Gurds 1st „ ..	50	..	373	4	253	2	111	3	57	2	14	..	858	11
	Scots Fusilier Gurds 2nd „ ..	105		458		188		53		43		9		856	
		631	5	2,861	21	1,538	12	497	6	340	9	103	1	5,970	54

Appendix No. III.—*continued.*

Corps.		Under 20 Years.		20—24.		25—29.		30—34.		35—40.		40 & upwards.		Total.	
		Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.
Infantry Regiments*	10th Foot, 2nd Battalion	334	1	316	3	131	1	44	..	15	..	9	..	849	5
	11th „ 1st „	110	1	337	4	167	2	103	4	33	1	10	1	760	13
	11th „ 2nd „	353	..	263	3	165	2	9	..	5	..	..	..	795	5
	12th „ 2nd „	131	1	239	1	107	..	138	2	162	4	30	..	807	8
	15th „ 1st „	178	2	353	5	145	..	123	2	50	1	1	..	850	10
	16th „ 1st „	209	1	349	2	121	1	107	2	63	1	9	..	858	7
	17th „ 2nd „	434	3	221	2	97	2	22	..	19	..	2	..	795	7
	18th „ 2nd „	381	..	280	2	97	1	8	..	21	..	6	..	793	3
	19th „ 2nd „	408	6	262	..	97	..	21	1	12	1	6	..	806	8
	20th „ 2nd „	292	1	169	..	71	1	16	..	17	..	5	..	570	2
	21st „ 2nd „	323	..	71	1	61	..	50	..	13	..	3	1	521	2
	22nd „ 1st „	109	..	344	1	219	1	91	..	97	2	12	..	872	4
	24th „ 2nd „	354	3	126	1	223	1	91	..	17	..	12	..	823	5
	36th „	48	1	470	2	158	1	143	1	28	..	2	..	849	5
	47th „	99	..	405	4	195	2	98	1	24	..	2	..	823	7
	76th „	188	1	240	2	187	..	178	2	47	1	5	..	845	6
	96th „	115	1	348	1	235	3	110	1	53	1	11	..	872	7
	Rifle Brigade, 1st Battalion	54	2	475	4	216	3	68	1	34	1	4	..	851	11
		4,120	24	5,268	38	2,692	21	1,420	17	710	13	129	2	14,339	115
† Depôt Battalions		6,334	40	4,740	48	2,502	31	1,392	28	1,580	60	536	24	17,084	231

* The 1st Battalion, 6th Foot; 2nd Battalion, 14th Foot; 2nd Battalion, 16th Foot; 30th Foot; 55th Foot; and 4th Battalion, 60th Foot, are not included in the above, the returns of ages not being available.

† It has not been deemed necessary to give the details of each Depôt separately as the results can only be considered as approximative, in consequence of the frequent changes in their composition, during the year, from the number of recruits joining and drafts leaving them to proceed to the service companies.

APPENDIX No. IV.

ABSTRACT, showing the Number of Men belonging to the Regiments serving at Home who were vaccinated during the 15 months from October 1858 to December 1859.

	Results.	In those who bore marks of previous Small-pox.	In those who bore good marks of previous Vaccination.	In those who bore doubtful marks of previous Vaccination.	In those who bore no marks of previous Vaccination or Small-pox.	Total.
Soldiers, not Recruits..	A perfect vaccine pustule	223	1,301	140	155	1,819
	A modified do.	108	552	173	53	886
	A failure in	207	1,219	163	109	1,698
	Total	538	3,072	476	317	4,403
Recruits ..	A perfect vaccine pustule	900	6,322	443	974	8,639
	A modified do.	481	3,597	261	374	4,713
	A failure in	1,190	6,345	332	467	8,334
	Total	2,571	16,264	1,036	1,815	21,686

ABSTRACT, No. of Appendix, showing the Number of Men belonging to the Embodied Regiments of Militia who were vaccinated during the 15 months, October 1858 to December 1859.

	Results.	In those who bore marks of previous Small-pox.	In those who bore good marks of previous Vaccination.	In those who bore doubtful marks of previous Vaccination.	In those who bore no marks of previous Vaccination or Small-pox.	Total.
Soldiers, not Recruits..	A perfect vaccine pustule	87	304	101	61	553
	A modified do.	51	244	32	26	353
	A failure in ..	128	484	32	48	692
	Total	266	1,032	165	135	1,598
Recruits ..	A perfect vaccine pustule	263	1,049	93	172	1,577
	A modified do.	159	884	39	31	1,113
	A failure in	327	1,623	92	91	2,133
	Total	749	3,556	224	294	4,823

APPENDIX No. V.

ABSTRACT, showing the Admissions into Hospital and Deaths among the Troops serving in the Mediterranean in the year 1859.

Stations	Gibraltar.		Malta.		Ionian Islands.		Native Troops. R. Malta Fencibles	
Strength	5,153		5,310		3,660		610	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
I. *Zymotic Diseases.*								
1. Miasmatic Diseases:								
Variola	15	1	..	..	..	..	..	..
Varicella	3	..	..	..	1	..	..	..
Morbilli	..	..	1	..	..	..	1	..
Scarlatina	1	..	..	..	82	2	..	..
Parotitis	5	..	6	..	..	..	..	..
Tonsillitis	89	..	79	..	80	..	10	..
Dysenteria Acuta	92	4	237	4	20	..	..	..
„ Chronica	4	..	15	1	..	..	..	..
Diarrhœa	292	..	551	5	191	1	18	..
Cholera Biliosa	1	..	..	..	3	..	..	..
Febris Intermittens	15	..	28	..	44	..	..	..
„ Remittens	..	..	59	..	24	..	..	..
„ Typhus	2	..	5	3	..	..	1	1
„ Typhoides	..	..	..	..	56	9	..	..
„ Continua	552	15	1431	44	557	14	8	1
Erysipelas	3	..	5	..	4	..	1	..
Anthrax	..	..	2	..	..	..	..	..
Ophthalmia	255	..	286	..	190	..	53	..
Rheumatismus Acutus	91	..	214	2	57	..	10	..
„ Chronica	52	..	74	..	48	..	7	..
2. Enthetic Diseases:								
Syphilis Primaria	506	..	171	..	157	..	7	..
„ Secundaria	65	..	145	..	44	..	2	..
Ulcus Penis	10	..	26	..	33	..	..	..
Cachexia Syphiloidæa	..	..	1	..	..	..	..	..
Iritis Syphilitica	7	..	13	..	4	..	..	..
Gonorrhœa	489	..	216	..	164	..	19	..
Phymosis, &c.	5	..	1	..	2	..	..	..
Orchitis (Gonorrhœal)	97	..	107	..	23	..	3	..
Strictura Urethræ	10	..	14	..	3	..	..	..
Bubo	136	..	76	..	72	..	1	..
Verrucæ	9	..	23	..	6	..	1	..
3. Dietic Diseases:								
Scorbutus	..	..	5	..	..	..	..	..
Ebriositas	..	2	9	..	1	..	..	..
4. Parasitic Diseases:								
Scabies	44	..	53	..	9	..	2	..
Porrigo	..	..	25	..	..	..	..	..
Vermes	8	..	7	..	12	..	..	..
II. *Constitutional Diseases.*								
1. Diathetic Diseases:								
Lumbago	10	..	9	..	1	..	2	..
Ischias	..	..	1	..	..	..	..	..
Anasarca	3	..	..	..	2	1	..	..
Tumores	25	..	1	..	5	..	1	..

Appendix, No. V.—*continued.*

Stations	Gibraltar.		Malta.		Ionian Islands.		Native Troops. R. Malta Fencibles.	
Strength	5,153		5,310		3,660		610	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
2. Tubercular Diseases:								
Scrofula	3	..	10	..	3	..	..	..
Morbus Coxarius	..	..	1	..	..	..	..	..
Phthisis Pulmonalis	18	2	40	8	10	2	1	1
Hæmoptysis	10	..	24	1	15	1	..	..
III. *Local Diseases.*								
1. Of the Nervous System:								
Encephalitis	3	..	1	..	..	..	..	..
Cephalæa et Vertigo	6	..	10	..	8	..	..	..
Apoplexia	..	..	3	3	..	..	..	..
Paralysis	8	..	6	1	5	1	1	..
Delirium Tremens	26	1	12	1	4	1	..	..
Mania	..	..	5	..	2	1	..	..
Amentia	3	..	3	..	..	..	..	..
Nostalgia	..	..	..	..	1	..	..	..
Epilepsia	12	..	18	1	15	1	5	..
Tetanus	..	..	..	..	1	1	..	..
Neuralgia	1	..	3	..	1	..	..	..
Odontalgia	..	..	2	..	..	..	..	..
Dysecœa	..	..	..	..	3	..	..	..
Otitis	19	..	28	..	11	..	2	..
Amaurosis	2	..	1	..	2	..	..	..
Cataractes	1	..	1	..	..	..	..	..
2. Of the Circulatory System:								
Carditis	33	..	3	..	..	..	..	..
Pericarditis	..	..	2	..	..	..	..	..
Morbus cordis	14	1	32	3	13	..	..	..
Aneurisma	1	1	3	1	1	2	..	..
Palpitatio	5	..	5	..	..	..	1	..
Varix	1	..	5	..	..	..	..	..
3. Of the Respiratory System:								
Bronchitis Acuta	276	..	376	4	152	..	27	..
„ Chronica	34	..	33	..	51	..	9	..
Pleuritis	14	..	14	..	10	..	1	..
Pneumonia	11	..	52	5	7	..	2	1
Apoplexia Pulmonalis	1	1	..	..	..	..	..	..
Asthma et Dyspnœa	10	..	5	..	3	..	1	..
Epistaxis	2	..	..	..	..	..	..	..
Pleurodynia	2	..	1	..	9	..	..	..
4. Of the Digestive System:								
Peritonitis	4	1	..	..	1	1	..	..
Gastritis	11	..	1	..	..	..	1	..
Enteritis	3	..	2	..	2	2	..	..
Obstipatio	13	..	8	..	9	..	..	..
Dyspepsia	56	..	136	..	61	..	71	..
Colica	18	..	51	..	18	..	..	..
Hæmatemesis	..	..	1	..	..	..	..	..
Hæmorrhois	21	..	37	..	13	..	..	..
Hernia	2	..	8	..	1	..	..	..
Fistula in ano	1	..	7	..	7	..	..	..
Prolapsus ani	..	..	2	..	..	..	..	..

Appendix, No. V.—*continued.*

Stations	Gibraltar.		Malta.		Ionian Islands.		Native Troops. R. Malta Fencibles.	
Strength	5,153		5,310		3,660		610	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Splenitis	..	..	..	..	1	..	..	..
Hepatitis Acuta	1	..	4	..	2	..	..	..
„ Chronica	1	..	8	1	3	..	1	..
Icterus	17	1	26	..	21	..	1	1
Ascites	..	..	4	..	1	..	..	..
Ranula	2	..	..	..	..	..	..	..
5. Of the Urinary System:								
Nephritis	1	..	2	1	..	..	..	..
Dysuria	1	..	1	..	3	..	3	..
Enuresis	6	..	1	..	3	..	..	..
Cystitis	2	..	1	..	..	..	..	..
Fistula in Perineo	..	..	1	..	..	..	..	..
6. Of the Reproductive System:								
Hydrocele	8	..	6	..	2	..	..	..
Sarcocele	1	..	..	..	..	..	..	..
7. Of the Locomotive System:								
Arthritis	9	..	3	..	1	..	..	..
Contractura	..	..	..	..	1	..	..	..
Ostitis	3	..	..	..	..	..	..	..
Periostitis	5	..	2	..	4	..	..	..
Necrosis	..	..	2	..	..	..	..	..
8. Of the Integumentary System:								
Acne	..	..	2	..	1	..	..	..
Ecthyma	..	..	1	..	..	..	..	..
Urticaria	3	..	3	..	5	..	..	..
Eczema	14	..	37	..	28	..	..	..
Herpes	26	..	7	..	6	..	..	..
Impetigo	10	..	36	..	27	..	..	..
Psoriasis	13	..	29	..	5	..	..	..
Lichen	1	..	9	..	4	..	..	..
Prurigo	6	..	1	..	6	..	..	..
Lepra	4	..	4	..	..	..	..	..
Phlegmon et Abscessus	486	..	637	..	328	..	36	..
Paronychia	27	..	13	..	5	..	..	..
Ulcus	247	..	276	..	151	..	23	..
IV. *Developmental Diseases.*								
4. Diseases of Nutrition:								
Atrophia	..	..	1	..	..	..	..	..
Debilitas	3	..	6	..	29	..	..	..
V. *Violent Deaths and Diseases.*								
1. Accidental:								
Ambustio	9	..	9	..	5	..	1	..
Insolatio	..	..	3	1	1	1	..	..
Submersio	..	..	..	2	..	1	..	..
Asphyxia	..	..	..	1	..	..	..	..
Fractura	16	1	31	1	6	1	1	..
Amputatio	..	..	1	..	1	..	..	..
Contusio	142	..	223	..	91	..	30	..
Compressio Cerebri	..	..	..	1	..	..	..	..
Vulnus Sclopetarium	1	..	1	..	..	..	..	..

Appendix No. V.—*continued.*

Stations	Gibraltar.		Malta.		Ionian Islands.		Native Troops. R. Malta Fencibles.	
Strength	5,153		5,310		3,660		610	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Vulnus Incisum	112	..	80	..	81	..	9	..
Luxatura	..	..	4	..	3	..	..	..
Subluxatio	75	..	74	..	38	..	2	..
Venenatio	..	..	1	1	..	..	..	..
2. In Battle:								
3. Homicidal:								
4. Suicidal:								
Vulnus Sclopetarium	..	4	..	..	..	..	..	..
„ Incisum	..	1	..	..	..	..	..	..
5. Execution:								
Suspendium	..	1	..	..	..	..	..	..
6. Punitus	23	..	20	..	13	..	..	..
Diseases not stated.								
Returned as—								
Morbi alii	16	..	..	..	..	..	..	..
Observatio	57	..	61	..	16	..	2	..
General Total	4,889	37	6,446	96	3,225	43	378	5

APPENDIX No. VI.

ABSTRACT, showing the Ages of the Troops serving in the Mediterranean Commands, and the Deaths at each Age during the Year 1859.

		Under 20 Years.		20—24.		25—29.		30—34.		35—40.		40 and upwards.		Total.	
		Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.
Gibraltar	2nd Battalion 6th Regiment ..	303	2	371	1	130	4	28	..	10	..	4	..	846	7
	2nd „ 8th „	401	1	255	3	72	..	25	..	13	..	1	..	767	4
	1st „ 25th „	178	..	360	1	144	1	54	..	120	1	13	1	869	4
Malta	2nd „ 3rd „	391	..	362	10	71	1	27	1	8	..	2	..	861	12
	2nd „ 15th „	207	7	248	2	129	5	35	..	22	..	1	..	642	14
	1st „ 21st „	37	..	468	2	189	2	93	4	45	1	8	..	840	9
	2nd „ 23rd „	331	4	360	11	152	3	22	1	9	..	1	1	875	20
	4th „ Rifle Brigade	236	2	389	9	131	6	11	1	10	1	2	..	779	19
Ionian Islands ..	2nd „ 2nd Regiment	71	4	685	3	89	1	17	1	10	..	4	..	876	9
Total		2,155	20	3,498	42	1,107	23	312	8	247	3	36	2	7,355	98

The returns of the 2nd Battalion 7th Regiment, at Gibraltar, and the 2nd Battalions 4th and 9th, and 1st Battalion 14th Regiment, in the Ionian Islands, were not available.

APPENDIX No. VII.

ABSTRACT, showing the Admissions into Hospital and Deaths among the Troops serving in British America in the year 1859.

Stations	Bermuda.		Nova Scotia.		Canada.		New-foundland		British Columbia.	
Strength	1,074		1,798		2,782		209		150	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
I. *Zymotic Diseases.*										
1. Miasmatic Diseases:										
Variola	..	..	1	..	1	..	..	..	..	..
Tonsillitis	4	..	31	..	30	..	12	..	5	..
Influenza	..	..	..	..	2	..	18	..	..	..
Dysenteria Acuta	7	..	..	..	2	..	..	..	..	..
„ Chronica	..	..	2	..	1	..	..	..	..	..
Diarrhœa	47	..	34	..	71	..	10	..	8	..
Cholera Biliosa	..	..	..	..	4	..	..	..	..	..
Febris Intermittens	2	..	1	..	..	..	..	..	..	..
„ Remittens	..	..	..	..	15	..	..	..	..	..
„ Continua	11	2	11	..	64	4	7	..	..	..
Erysipelas	..	..	1	..	6	1	2	..	..	..
Ophthalmia	32	..	20	..	98	..	7	..	1	..
Rheumatismus Acutus	12	..	27	..	27	1	5	..	..	..
„ Chronica	6	..	9	..	48	..	30	..	3	..
Vaccinia	..	..	..	..	1	..	..	..	..	..
2. Enthetic Diseases:										
Syphilis Primaria	9	..	68	..	78	..	..	..	6	..
„ Secundaria	4	..	23	..	18	..	1	..	..	..
Ulcus Penis	4	..	5	..	38	..	..	..	..	..
Iritis Syphilitica	5	..	1	..	3	..	..	..	..	..
Gonorrhœa	25	..	67	..	82	..	..	..	2	..
Phymosis, &c.	1	..	2	..	2	..	..	..	..	..
Orchitis (Gonorrhœal)	6	..	14	..	11	..	..	..	1	..
Strictura Urethræ	2	..	10	..	9	..	6	..	..	..
Bubo	12	..	10	..	38	..	..	..	3	..
Verrucæ	1	..	2	..	5	..	..	..	..	..
3. Dietic Diseases:										
Scorbutus	..	..	..	..	1	..	..	..	..	..
Ebriositas	..	..	..	1	30	..	1	..	..	..
4. Parasitic Diseases:										
Porrigo	..	..	1	..	1	..	1	..	..	..
Scabies	5	..	5	..	1	..	..	..	..	..
Vermes	1	..	..	..	2	..	..	..	..	..
Tinea Capitis	..	..	1	..	..	..	..	..	..	..
II. *Constitutional Diseases.*										
1. Diathetic Diseases:										
Lumbago	3	..	1	..	10	..	2	..	..	..
Anasarca	..	..	4	..	1	..	..	..	..	..
Tumores	..	..	1	..	..	..	2	..	..	..
Œdema	..	..	..	..	2	..	..	..	..	..

Appendix No. VII.—*continued.*

Stations	Bermuda.		Nova Scotia.		Canada.		Newfoundland		British Columbia.	
Strength	1,074		1,798		2,782		209		150	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
2. Tubercular Diseases:										
Scrofula	..	..	7	..	..	..	..	..	..	..
Phthisis Pulmonalis	4	3	21	5	21	5	5	..	..	..
Hæmoptysis	2	..	3	..	3	..	..	..	..	..
III. *Local Diseases.*										
1. Of the Nervous System:										
Meningitis	..	..	..	..	2	..	..	..	..	..
Encephalitis	..	..	..	..	1	1	..	..	..	..
Cephalæa	..	..	6	..	2	..	5	..	..	..
Paralysis	1	..	..	..	4	1	..	..	..	..
Delirium Tremens	9	2	11	..	32	2	2	1	1	..
Mania	..	..	..	..	..	..	1	..	..	..
Dementia	3	..	..	..	2	..	..	..	..	..
Epilepsia	5	..	3	..	4	..	5	..	..	..
Tetanus	1	1	..	..	1	..	..	..	..	..
Neuralgia	2	..	..	..	2	..	..	..	..	..
Odontalgia	..	..	..	..	1	..	..	..	..	..
Dysecœa	1	..	..	..	1	..	..	..	..	..
Otitis	3	..	4	..	1	..	..	..	..	..
Amaurosis	..	..	2	..	2	..	1	..	1	..
Cataractes	..	..	..	..	1	..	..	..	..	..
2. Of the Circulatory System:										
Pericarditis	..	..	..	..	3	..	..	..	..	..
Morbus Cordis	3	..	1	..	5	1	10	..	..	..
Palpitatio	1	..	4	..	..	..	..	..	..	..
Aneurisma	..	..	1	1	3	..	..	..	..	..
Varix	..	..	..	..	1	..	7	..	..	..
3. Of the Respiratory System:										
Bronchitis Acuta	39	..	110	..	135	2	26	..	7	..
„ Chronica	10	..	24	..	24	2	29	..	7	..
Pleuritis	4	..	3	..	6	..	1	..	..	..
Pneumonia	1	..	18	2	22	3	2	..	..	..
Asthma	1	..	3	..	1	..	1	..	..	..
Epistaxis	1	..	..	..	..	..	..	..	..	..
Pleurodynia	1	..	..	..	1	..	..	..	..	..
4. Of the Digestive System:										
Peritonitis	..	..	1	1	..	..	..	..	..	..
Enteritis	2	1	..	..	..	..	..	..	..	..
Obstipatio	5	..	8	..	4	..	2	..	..	..
Dyspepsia	53	..	39	..	54	..	5	..	1	..
Colica	1	..	4	..	10	..	..	..	..	..
Hæmatemesis	..	..	1	..	..	..	..	..	..	..
Hæmorrhois	12	..	10	..	7	..	..	..	..	..
Hernia Inguinalis	..	..	2	..	1	..	2	..	..	..
Fistula in Ano	..	..	1	..	3	..	..	..	..	..
Splenitis	..	..	..	..	1	..	..	..	..	..
Hepatitis Acuta	1	..	..	..	6	..	1	..	..	..
„ Chronica	2	..	1	..	4	1	5	..	..	..
Icterus	..	..	4	..	2	..	..	..	..	..

Appendix No. VII.—*continued.*

Stations	Bermuda.		Nova Scotia.		Canada.		Newfoundland		British Columbia.	
Strength	1,074		1,798		2,782		209		150	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
5. Of the Urinary System :										
Nephritis	..	..	2	..	3	..	..	..	..	..
Nephria	..	..	..	..	2	..	..	..	..	..
Cystitis	..	..	1	..	1	..	..	..	..	..
Enuresis	1	..	..	..	..	..	..	..	..	..
6. Of the Reproductive System :										
Hydrocele	1	..	..	..	1	..	..	..	..	..
Sarcocele	1	..	..	..	..	..	..	..	..	..
7. Of the Locomotive System :										
Arthritis	1	..	1	..	4	..	1	..	..	..
Hydrarthrus	1	..	1	..	1	..	..	..	..	..
Contractura	2	..	..	..	..	..	..	..	..	..
Periostitis	1	..	..	..	2	..	1	..	..	..
Caries	..	..	1	..	..	..	..	..	..	..
8 Of the Integumentary System :										
Epulis	..	..	..	..	2	..	..	..	..	..
Urticaria	..	..	1	..	..	..	1	..	..	..
Eczema	..	..	1	..	1	..	..	..	..	..
Herpes	1	..	3	..	3	..	2	..	..	..
Impetigo	..	..	1	..	..	..	1	..	..	..
Psoriasis	1	..	2	..	11	..	..	..	..	..
Lichen	1	..	1	..	..	..	..	..	..	..
Rupia	1	..	..	..	..	..	..	..	..	..
Lepra	..	..	3	..	1	..	..	..	..	..
Phlegmon	81	..	78	..	104	..	8	..	15	..
Paronychia	..	..	4	..	2	..	1	..	..	..
Ulcus	39	..	49	..	70	..	3	..	6	..
IV. *Developmental Diseases.*										
4. Diseases of Nutrition :										
Atrophia	..	..	1	..	..	..	..	..	..	..
Debilitas	1	..	..	..	3	..	..	..	..	..
V. *Violent Deaths or Diseases.*										
1. Accidental :										
Ambustio	1	..	5	..	7	..	1	..	1	..
Gelatio	..	..	10	..	23	..	1	..	..	..
Insolatio	..	..	..	..	1	..	..	..	..	..
Submersio	..	..	..	..	1	1	..	..	..	1
Asphyxia	..	..	..	..	..	1	..	..	..	..
Fractura	6	1	10	..	12	..	1	..	4	..
Amputatio	..	..	..	..	1	..	1	..	..	..
Contusio	29	..	81	..	87	..	17	..	7	..
Vulnus Sclopetarium	..	..	..	..	..	..	..	..	1	..
„ Incisum	22	..	51	1	52	..	6	..	5	..
Luxatura	2	..	2	..	5	..	2	..	..	..
Subluxatio	12	..	27	..	32	..	10	..	..	..
4. Suicidal : Vulnus Sclopetarium	..	2	..	..	..	1	..	..	..	..
6. Punitus	1	..	2	..	3	..	3	..	..	..
Diseases not stated :										
Returned as Observatio	4	..	21	..	6	..	4	..	..	..
Total	577	12	1003	11	1516	27	278	1	85	1

APPENDIX No. VIII.

ABSTRACT, showing the Ages of the Troops serving in British America, and the Deaths at each Age during the year 1859.

Station.	Corps.	Under 20.		20—24.		25—29.		30—34.		35—39.		40 and upwards.		Total.	
		Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Stren gth	Died.	Strength.	Died.	Strength.	Died.
Bermuda.. ..	26th Foot	14	..	300	3	187	1	207	5	104	5	36	..	848	14
Nova Scotia and New Brunswick	62nd „ ..	35	1	388	..	203	..	75	3	30	..	9	..	740	4
	63rd „ ..	63	..	402	4	214	1	91	3	23	..	5	..	798	8
Canada ..	1st Batt. 17th Foot	31	1	403	5	220	2	91	..	30	1	10	..	785	9
	39th Foot	71	..	373	2	250	3	108	..	27	1	5	..	834	6
	Canadian Rifles ..	11	..	7	..	50	1	254	2	467	6	274	3	1,063	12
Newfoundland	Royal Newfoundland Companies	..	..	8	..	19	..	38	..	74	1	50	..	189	1

APPENDIX No. IX.

ABSTRACT, showing the Admissions into Hospital and Deaths among the White Troops serving in Jamaica, and the Windward and Leeward Command.

Stations	Jamaica.		Subordinate Stations. Port Royal.	Subordinate Stations. Newcastle.	West Indies.		Subordinate Stations. Barbadoes.		Subordinate Stations. St. Lucia.		Subordinate Stations. Trinidad.		Subordinate Stations. British Guiana.	
Strength	624		124	481	1215		786		96		190		143	
Diseases.	Admitted.	Died.	Admitted.	Admitted.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
I. *Zymotic Diseases.*														
1. Miasmatic:														
Variola	..	..	..	..	1	..	..	..	..	..	..	..	1	..
Tonsillitis	8	..	..	8	14	..	11	..	..	..	3	..	..	..
Dysenteria Acuta	..	..	..	..	5	..	1	..	..	..	3	..	1	..
Diarrhœa	26	..	1	24	26	..	13	..	6	..	4	..	3	..
Febris Intermittens	72	..	52	9	125	..	51	..	11	..	49	..	14	..
„ Remittens	10	2	3	5	97	1	..	..	..	..	30	1	67	..
„ Icterodes	..	1	..	..	11	10	..	..	..	..	11	10	..	..
„ Continua	14	..	10	4	145	1	67	..	22	..	56	1	..	..
Erysipelas	..	..	..	..	1	..	1	..	..	..	..	..	..	..
Furunculus	..	..	..	..	1	..	1	..	..	..	..	..	..	..
Ophthalmia	129	..	10	117	142	..	100	..	18	..	19	..	5	..
Rheum: Acutus	3	..	2	1	34	..	29	..	1	..	2	..	2	..
„ Chron:	7	..	..	7	9	..	9	..	..	..	..	..	..	..
Vaccinia	..	..	..	..	2	..	2	..	..	..	..	..	..	..
2. Enthetic:														
Syphilis Primaria	47	..	3	44	23	..	21	..	..	..	1	..	1	..
„ Secundaria	30	..	8	22	10	..	7	..	1	..	1	..	1	..
Ulcus Penis	2	..	2	..	7	..	7	..	..	..	..	..	..	..
Iritis Syphilitica	..	..	..	..	2	..	1	..	..	..	1	..	..	..
Gonorrhœa	39	..	14	24	55	..	42	..	..	..	7	..	6	..
Phymosis, &c.	1	..	1	..	4	..	4	..	..	..	..	..	..	..
Orchitis (Gonorr.)	6	..	2	4	22	..	19	..	1	..	2	..	..	..
Strictura Urethræ	2	..	..	2	..	..	..	..	..	..	..	..	..	..
Bubo	6	..	1	5	18	..	13	..	..	..	4	..	1	..
Verrucæ	..	..	..	..	3	..	3	..	..	..	..	..	..	..
3. Dietic:														
Ebriositas	..	..	..	..	..	1	..	1	..	..	..	..	..	..
4. Parasitic:														
Vermes	..	..	..	..	4	..	3	..	1	..	..	..	..	..
II. *Constitutional Diseases.*														
1. Diathetic:														
Lumbago	..	..	..	..	4	..	3	..	..	..	1	..	..	..
Anasarca	1	..	..	..	1	..	..	..	1	..	..	..	..	..
2. Tubercular:														
Scrofula	..	..	..	..	6	..	6	..	..	..	..	..	..	..
Phthisis Pulmon.	..	..	..	..	1	1	1	1	..	..	..	..	..	..
Hæmoptysis	..	..	..	..	2	..	2	..	..	..	..	..	..	..

Appendix IX.—*continued.*

Stations	Jamaica.		Subordinate Stations. Port Royal.		Subordinate Stations. Newcastle.		West Indies.		Subordinate Stations. Barbadoes.		Subordinate Stations. St. Lucia.		Subordinate Stations. Trinidad.		Subordinate Stations. British Guiana.	
Strength	624		124		481		1215		786		96		190		143	
Diseases.	Admitted.	Died.	Admitted.		Admitted.		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
III. *Local Diseases.*																
1. Nervous System:																
Cephal: et Vertigo	1	..	..		..		2	..	1	..	1	..	..	..	..	..
Apoplexia	..	1	..		..		1	1	..	..	..	..	..	..	1	1
Delirium Tremens	10	2	4		2		21	4	9	..	..	..	12	4	..	..
Mania	..	..	..		..		1	..	1	..	..	..	..	..	..	..
Dementia	1	..	1		..		1	..	1	..	..	..	..	..	..	..
Epilepsia	2	..	1		1		9	..	5	..	2	..	..	..	2	..
Otitis	..	..	..		..		13	..	13	..	..	..	..	..	..	..
Aphonia	..	..	..		..		5	..	4	..	..	..	1	..	..	..
2. Circulatory System:																
Aneurisma	1	..	1		..		1	1	1	1	..	..	..	..	..	..
Morbus Cordis	1	..	..		1		..	1	..	1	..	..	..	..	..	..
3. Respiratory System:																
Bronchitis Acuta	29	..	4		25		29	..	23	..	2	..	2	..	2	..
„ Chronica	2	..	..		..		6	..	4	..	2	..	..	..	..	..
Pleuritis	..	..	..		..		12	1	10	1	..	..	..	..	2	..
Pneumonia	1	..	1		..		2	..	1	..	1	..	..	..	..	..
Asthma	..	..	..		..		1	..	1	..	..	..	..	..	..	..
4. Digestive System:																
Gastritis	..	..	..		..		1	..	..	..	1	..	..	..	..	..
Obstipatio	1	..	..		..		7	..	4	..	1	..	1	..	1	..
Dyspepsia	121	..	2		119		51	..	29	..	2	..	17	..	3	..
Colica	23	..	9		12		27	..	13	..	5	..	7	..	2	..
Hæmatemesis	..	..	..		..		1	..	1	..	..	..	..	..	..	..
Hæmorrhois	7	..	1		6		3	..	..	..	..	..	1	..	2	..
Hernia Inguinalis	2	..	..		2		4	..	1	..	..	..	..	..	3	..
Hepatitis Acuta	..	..	..		..		1	..	1	..	..	..	..	..	..	..
„ Chronica	4	1	..		4		..	..	..	..	..	..	..	..	..	..
Icterus	2	..	..		2		..	..	..	..	..	..	..	..	..	..
Ascites	..	..	..		..		2	..	1	..	1	..	..	..	..	..
5. Urinary System:																
Dysuria	..	..	..		..		2	..	2	..	..	..	..	..	..	..
6. Reproductive System:																
Hydrocele	1	..	..		1		2	..	2	..	..	..	..	..	..	..
7. Locomotive System:																
Periostitis	..	..	..		..		3	..	3	..	..	..	..	..	..	..

Appendix IX.—*continued.*

Stations	Jamaica.		Subordinate Stations. Port Royal.	Subordinate Stations. Newcastle.	West Indies.		Subordinate Stations. Barbadoes.		Subordinate Stations. St. Lucia.		Subordinate Stations. Trinidad.		Subordinate Stations. British Guiana.	
Strength	624		124	481	1215		786		96		190		143	
Diseases.	Admitted.	Died.	Admitted.	Admitted.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
8. Integumentary System:														
Urticaria	2	..	2	..	1	..	1	..	..	..	..	..	..	..
Eczema	1	..	1	..	2	..	2	..	..	..	..	..	..	..
Herpes	1	..	..	1	4	..	3	..	..	..	1	..	..	..
Impetigo	..	..	..	..	2	..	..	..	1	..	..	..	1	..
Psoriasis	..	..	..	..	4	..	3	..	1	..	..	..	..	..
Lepra	..	..	..	..	1	..	..	..	..	..	1	..	..	..
Phlegmon et Absc.	64	..	29	34	153	..	116	..	7	..	17	..	13	..
Paronychia	..	..	..	..	13	..	10	..	..	..	3	..	..	..
Ulcus	59	..	10	49	58	..	41	..	12	..	3	..	2	..
IV. *Developmental Diseases.*														
4. Diseases of Nutrition:														
Debilitas	3	..	..	3	6	..	6	..	..	..	..	..	..	..
V. *Violent Deaths or Diseases.*														
1. Accidental:														
Ambustio	4	..	1	2	7	..	3	..	..	..	2	..	2	..
Insolatio	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Submersio	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Fractura	2	..	..	1	3	..	2	..	..	..	..	..	1	..
Contusio	56	..	23	33	38	..	27	..	4	..	4	..	3	..
Vulnus Sclopet:	1	..	..	1	1	..	1	..	..	..	..	..	..	..
„ Incisum	15	..	5	10	37	..	18	..	4	..	6	..	9	..
Luxatura	1	..	1	..	7	..	4	..	..	..	1	..	2	..
Subluxatio	2	..	..	2	26	..	19	..	3	..	1	..	3	..
3. Homicidal:														
Vulnus Incisum	..	1	..	..	..	..	..	..	..	..	..	..	..	..
4. Suicidal:														
Vulnus Sclopet:	1	1	..	1	1	1	..	..	..	..	1	1	..	..
6. Punitus	6	..	..	3	3	..	3	..	..	..	..	..	..	..
Diseases not stated, returned as "Observatio."	2	..	1	1	21	..	19	..	1	..	1	..	..	..
Total	833	9	206	595	1371	24	826	5	113	..	276	17	156	2

APPENDIX No. X.

ABSTRACT, showing the Admissions into Hospital and Deaths among the Black Troops serving in Jamaica, the Windward and Leeward Commands, Honduras, and Bahamas.

Stations	Jamaica.		West Indies.		Subordinate Stations.								Honduras.		Bahamas.	
					Barbadoes.		St. Lucia.		Trinidad.		British Guiana.					
Strength	807		1260		754		103		102		301		322		322	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
I. *Zymotic Diseases.*																
1. Miasmatic:																
Variola	..	..	3	..	1	..	..	..	..	..	2	..	..	..	..	..
Tonsillitis	12	..	15	..	14	..	1	..	..	..	..	..	2	..	5	..
Dysenteria Acuta	3	..	2	..	1	..	..	..	..	..	1	..	2	..	7	3
„ Chronica	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Diarrhœa	21	1	17	2	9	2	1	..	4	..	3	..	8	..	17	..
Febris Intermittens	325	1	125	1	22	1	5	..	10	..	88	..	64	..	41	..
„ Remittens	62	4	23	2	8	..	..	..	7	2	8	..	2	..	1	..
„ Typhus	..	..	1	1	1	1	..	..	..	..	..	..	..	..	..	..
„ Typhoides	7	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
„ Continua	5	1	42	2	33	1	9	1	..	..	..	..	3	..	3	..
Ophthalmia	20	..	31	..	19	..	..	..	1	..	11	..	2	..	4	..
Rheum: Acutus	13	..	87	..	62	..	1	..	2	..	22	..	5	..	16	..
„ Chron:	36	..	31	..	15	..	5	..	4	..	7	..	5	..	28	..
Vaccinia	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
2. Enthetic:																
Syphilis Primaria	98	..	79	..	65	..	..	..	..	..	14	..	3	..	22	..
„ Secundaria	17	1	13	..	9	..	1	..	..	..	3	..	2	..	4	..
Ulcus Penis	7	..	2	..	..	..	2	..	..	..	..	..	..	..	..	..
Gonorrhœa	114	..	93	..	77	..	2	..	1	..	13	..	23	..	14	..
Phymosis, &c.	..	..	2	..	2	..	..	..	..	..	..	..	6	..	..	..
Orchitis (Gonorr:)	14	..	25	..	16	..	..	..	2	..	7	..	2	..	2	..
Strictura Urethræ	2	1	4	..	3	..	..	..	1	..	..	..	..	..	2	..
Bubo	14	..	23	..	13	..	1	..	3	..	6	..	3	..	5	..
Verrucæ	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
3. Dietic:																
Ebriositas	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	..
4. Parasitic:																
Scabies	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ascaris Lumbri:	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..
Vermes	..	..	..	..	..	..	..	..	..	..	..	..	6	..	..	..
II. *Constitutional Diseases.*																
1. Diathetic:																
Lumbago	2	..	13	..	1	..	2	..	1	..	9	..	..	..	..	..
Anæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Anasarca	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..
Tumores	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Tubercular:																
Scrofula	2	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..
Abscessus Psoanus	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Appendix No. X.—*continued.*

Stations	Jamaica.		West Indies.		Subordinate Stations. Barbadoes.		St. Lucia.		Trinidad.		British Guiana.		Honduras.		Bahamas.	
Strength	807		1260		754		103		102		301		322		322	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Phthisis Pulmon:	12	6	8	2	6	1	..	..	1	1	1	..	..	..	5	5
Hæmoptysis	4	..	1	1	..	1	..	..	..	..	1	..	..	..	..	..
III. *Local Diseases.*																
1. Nervous System:																
Encephalitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Cephalæa	8	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Apoplexia	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1
Paralysis	3	1	2	..	..	..	..	..	..	..	2	..	1	..	1	..
Delirium Tremens	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..
Mania	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dementia	..	..	6	1	4	1	..	..	2	..	..	..	..	..	..	..
Epilepsia	6	..	4	..	3	..	1	..	..	..	..	..	..	..	..	..
Odontalgia	:	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..
Otitis	4	..	4	..	3	..	..	..	..	..	1	..	..	..	..	..
2. Circulatory Syst:																
Carditis	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
Varix	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
3. Respiratory Syst:																
Bronchitis Acuta	19	1	106	1	62	1	6	..	8	..	30	..	14	..	11	..
,, Chronica	14	..	14	1	2	..	5	..	1	..	6	1	..	..	2	..
Pleuritis	..	..	5	..	3	..	..	..	1	..	1	..	4	..	2	..
Pneumonia	2	1	5	1	2	1	1	..	..	..	2	..	1	..	3	1
Asthma	1	1	11	..	8	..	..	..	..	..	3	..	2	..	1	..
Pleurodynia	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..
4. Digestive System:																
Gastritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Obstipatio	3	..	14	..	3	..	2	..	2	..	7	..	2	..	4	..
Dyspepsia	2	..	15	..	7	..	..	..	3	..	5	..	1	..	..	..
Colica	16	..	8	..	6	..	2	..	..	..	..	..	7	..	..	..
Hæmorrhois	1	..	3	..	3	..	..	..	..	..	..	..	..	..	..	..
Hernia Inguinalis	..	..	5	..	4	..	1	..	..	..	..	..	1	..	1	..
Fistula in ano	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..
Splenitis	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
Hepatitis Acuta	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Icterus	..	..	9	..	5	..	..	..	..	..	4	..	1	..	..	..
Ascites	..	..	2	2	1	1	..	..	1	1	..	..	..	..	..	..
5. Urinary System:																
Diuresis	..	..	1	1	..	..	..	..	..	..	1	1	2	..	..	..
Fistula in Perineo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Albuminuria	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6. Locomotive System:																
Synovitis	..	..	2	..	..	..	..	..	2	..	..	..	..	..	1	..
Hydrarthrus	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Periostitis	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..
Exostosis	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..
Caries	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Necrosis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Appendix No. X.—*continued.*

Stations	Jamaica.		West Indies.		Subordinate Stations.								Honduras.		Bahamas.	
					Barbadoes.		St. Lucia.		Trinidad.		British Guiana.					
Strength	807		1260		754		103		102		301		322		322	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
8. Integumentary System:																
Morbi Cutis	1	..	3	..	..	..	..	..	1	..	2	..	1	..	..	..
Eczema	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
Herpes	..	..	2	..	2	..	..	..	..	..	..	..	1	..	..	..
Impetigo	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..
Psoriasis	..	..	3	..	3	..	..	..	..	..	..	..	..	..	..	..
Lichen	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
Phlegmon et Absc.	41	..	114	..	78	..	14	..	..	..	22	..	17	..	18	..
Paronychia	1	..	6	..	..	..	2	..	..	..	4	..	5	..	..	..
Ulcus	40	..	116	..	81	..	10	..	6	..	19	..	21	..	8	..
IV. *Developmental Diseases.* 4. Diseases of Nutrition:																
Debilitas	..	..	2	..	2	..	..	..	..	..	..	..	..	..	2	..
V. *Violent Deaths or Diseases.* 1. Accidental:																
Ambustio	1	..	4	..	3	..	..	..	..	..	1	..	1	..	..	..
Fractura	2	..	4	..	3	..	..	..	..	..	1	..	2	..	..	..
Amputatio	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Contusio	29	..	26	..	11	..	8	..	5	..	2	..	17	..	4	..
Vulnus Sclopet:	6	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
,, Incisum	11	..	58	..	33	..	5	..	1	..	19	..	22	..	19	..
Luxatura	1	..	3	..	2	..	..	..	..	..	1	..	..	..	1	..
Subluxatio	2	..	10	..	9	..	1	..	..	..	..	..	..	..	..	..
2. Homicidal:																
Vulnus Incisum	..	..	2	2	..	..	..	..	2	2	..	..	..	..	..	..
3. Suicidal:																
Vulnus Sclopet:	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1
6. Punitus	9	..	10	..	6	..	2	..	..	..	2	..	6	..	2	..
Not stated, returned as Observatio	7	..	38	..	29	..	3	..	5	..	1	..	2	..	2	..
Total	1034	25	1276	21	766	12	95	1	78	6	337	2	274	2	268	13

APPENDIX No. XI.

ABSTRACT, showing the Admissions into Hospital and Deaths among the Troops serving on the West Coast of Africa.

Stations	Sierra Leone.		Gambia.		Gold Coast.	
Strength	356.		314.		279.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
I. *Zymotic Diseases.*						
1. Miasmatic:						
Variola	11	..	3	..	..	..
Varioloides	..	..	7	..	..	..
Varicella	1	..	..	..	..	..
Morbilli	6	..	..	..	..	..
Tonsillitis	2	..	1	..	..	..
Ophthalmia	4	..	3	..	6	..
Dysenteria Acuta	3	..	2	..	1	1
Diarrhœa	..	..	3	..	8	..
Febris Intermittens	13	..	18	..	2	..
„ Remittens	8	..	8	..	4	1
„ Continua	3	1	10	..	2	..
Rheumatismus Acutus	14	..	4	..	10	..
„ Chronicus	15	..	3	..	..	..
2. Enthetic:						
Syphilis Primaria	3	..	7	..	1	..
„ Secundaria	..	..	1	1	..	..
Bubo	5	..	2	..	..	..
Gonorrhœa	27	..	29	..	5	..
Phymosis, &c	..	..	1	..	..	..
Orchitis (Gonorrhœal)	2	..	3	..	3	..
Ulcus Penis	1	..	4	..	..	..
3. Parasitic:						
Vermes	2	..	..	..	..	..
Scabies	..	..	6	..	..	..
Dracunculus	..	..	2	..	70	..
II. *Constitutional Diseases.*						
1. Diathetic:						
Lumbago	1	..	..	..	..	..
Anasarca	..	..	2	..	..	..
2. Tubercular:						
Scrofula	5	..	..	..	..	..
Phthisis Pulmonalis	1	2	1	1	..	..
Hæmoptysis	..	..	1	..	..	..
III. *Local Diseases.*						
1. Of the Nervous System:						
Paralysis	..	..	1	..	2	..
Delirium Tremens	..	..	2	..	..	..
Epilepsia	..	..	2	..	..	..
Cephalæa	..	..	1	..	1	..
2. Of the Circulatory System:						
Aneurisma Aortæ	..	..	1	1	..	..

Appendix No. XI.—*continued.*

Stations	Sierra Leone.		Gambia.		Gold Coast.	
Strength	356.		314.		279.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
3. Of the Respiratory System:						
Bronchitus Acuta	11	..	18	..	3	..
,, Chronica	1	..	2	..	..	..
Pleuritis	..	..	4	1	1	..
Pneumonia	2	..	7	1	2	..
4. Of the Digestive System:						
Gastritis	..	..	..	..	1	1
Enteritis	1	1	..	..	..	..
Peritonitis	1	1	..	..	..	..
Obstipatio	1	..	..	..	2	..
Dyspepsia	1	..	..	..	1	..
Colica	3	..	2	..	..	..
Hæmatemesis	..	..	1	..	..	..
Hernia Inguinalis	1	..	..	..	1	..
Hæmorrhois	..	..	1	..	..	..
Splenitis	..	..	2	..	..	..
Hepatitis Acuta	1	..	..	..	1	..
,, Chronica	..	..	..	..	1	1
Icterus	1	..	..	..	..	..
5. Of the Urinary System:						
Nephritis	1	..	..	..	..	..
Hæmaturia	1	..	..	..	1	..
Cystitis	..	..	..	..	1	..
6. Of the Reproductive System:						
Hydrocele	..	..	..	..	1	..
Sarcocele	..	..	1	..	..	..
7. Of the Locomotive System:						
Arthritis	1	..	1	..	..	..
Caries	3	..	..	..	..	..
8. Of the Integumentary System:						
Morbi Cutis	3	..	..	..	..	..
Urticaria	..	..	2	..	..	..
Eczema	..	..	..	..	1	..
Framboesia	..	..	..	..	1	..
Phlegmon et Abscessus	4	..	9	..	3	..
Paronychia	..	..	2	..	..	..
Ulcus	12	..	3	..	16	..
IV. *Developmental Diseases.* 4. Diseases of Nutrition:						
Atrophia	..	..	2	..	..	..
Debilitas	1	..	..	..	..	..
V. *Violent Deaths or Diseases.* 1. Accidental:						
Submersio	..	..	..	..	..	2
Fractura	1	..	..	..	..	..
Contusio	4	..	2	..	5	..

Appendix No. XI.—*continued.*

Stations	Sierra Leone.		Gambia.		Gold Coast.	
Strength	356.		314.		279.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Vulnus Sclopetarium ..	1	..	..	..	..	..
„ Incisum	6	..	6	..	2	..
Luxatura	..	..	1	..	..	..
Subluxatio	3	..	4	..	..	..
3. Homicidal:						
Vulnus Sclopetarium ..	..	..	1	1	..	..
4. Suicidal	..	..	..	1	..	1
5. Execution:						
Suspendium	..	..	..	1	..	..
6. Punitus	..	..	1	..	..	..
Diseases not stated	1	..	5	..	3	..
Total	193	5	205	8	162	7

APPENDIX No. XII.

ABSTRACT, showing the Admissions into Hospital and Deaths among the Troops serving at St. Helena, the Cape of Good Hope, Mauritius, and Ceylon.

Stations	St. Helena.		Cape of Good Hope. Cape Town.		Natal.		Eastern Frontier.		Mauritius		Ceylon. White Troops.		Ceylon. Black Troops.	
Strength	465		664		562		3,096		1,254		913		1,564	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
I. *Zymotic Diseases.*														
1. Miasmatic:														
Variola	..	..	..	..	..	..	12	1	..	..	..	..	..	..
Varicella	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Parotitis	1	..	4	..	..	..	1	..	..	..	..	..	7	..
Tonsillitis	6	..	20	..	11	..	56	..	17	..	16	..	7	..
Ophthalmia	3	..	28	..	78	..	273	..	30	..	47	..	92	..
Erysipelas	..	..	2	..	1	..	10	..	..	..	..	..	..	..
Dysenteria Acuta	1	..	37	3	7	1	29	1	80	1	75	7	28	1
„ Chronica	..	..	37	3	..	..	5	1	12	1	13	1	1	..
Diarrhœa	43	..	106	..	6	..	93	1	224	2	192	..	42	..
Cholera Biliosa	..	..	..	..	..	..	3	..	1	..	..	..	..	..
„ Spasmodica	..	..	..	..	..	..	..	..	..	..	6	1	2	2
Febris Intermittens	..	..	353	3	..	..	39	..	62	..	67	..	236	1
„ Remittens	..	..	17	..	..	..	2	..	..	..	7	1	26	..
„ Typhus	..	..	..	..	..	..	2	1	..	..	..	..	..	..
„ Continua	106	1	19	1	69	1	135	2	84	3	69	..	95	1
Rheumatismus Acutus	3	..	22	..	11	..	81	..	6	..	52	..	34	..
„ Chron.	14	..	32	..	20	..	60	..	48	..	26	1	14	..
2. Enthetic:														
Syphilis Primaria	2	..	64	..	3	..	121	..	15	..	61	..	3	..
„ Secundaria	11	..	25	..	13	..	43	..	17	..	22	..	4	..
Iritis Syphilitica	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Bubo	4	..	12	..	11	..	20	..	9	..	51	..	10	..
Gonorrhœa	15	..	54	..	20	..	198	..	21	..	60	..	15	..
Phymosis, &c.	..	..	1	..	2	..	6	..	..	..	..	..	..	..
Orchitis (Gonorrhœal)	6	..	10	..	9	..	50	..	17	..	26	..	13	..
Strictura Urethræ	5	..	5	1	1	..	11	..	9	..	..	..	1	..
Ulcus Penis	..	..	8	..	4	..	32	..	2	..	1	..	11	..
Verrucæ	..	..	2	..	4	..	6	..	1	..	..	..	..	..
3. Dietic:														
Scorbutus	..	..	1	..	..	..	3	..	7	..	2	..	..	..
Ebriositas	..	..	1	..	..	..	..	1	..	..	3	..	1	..
4. Parasitic:														
Porrigo	..	..	..	..	..	..	..	..	..	..	4	..	..	..
Scabies	1	..	5	..	2	..	121	..	1	..	..	..	79	..
Vermes	1	..	4	..	1	..	6	..	1	..	7	..	..	..
II. *Constitutional Diseases.*														
1. Diathetic:														
Podagra	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Lumbago	3	..	4	..	..	..	11	..	11	..	7	..	11	..
Anasarca	..	..	1	..	..	..	..	..	..	..	..	..	4	2
Tumores	..	..	2	..	1	..	7	..	..	..	1	..	1	..

Appendix No. XII.—*continued.*

Stations	St. Helena.		Cape of Good Hope. Cape Town.		Natal.		Eastern Frontier.		Mauritius		Ceylon. White Troops.		Ceylon. Black Troops.	
Strength	465		664		562		3,096		1,254		913		1,564	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
2. Tubercular:														
Scrofula	..	..	3	..	1	..	1	..	2	..	5	..	1	..
Morbus Coxarius	..	..	..	..	..	..	2	..	..	..	..	..	..	..
Phthisis Pulmonalis	2	..	4	..	7	2	19	5	21	2	7	2	1	1
Hæmoptysis	1	..	1	..	2	..	2	..	7	..	5	..	2	1
III. *Local Diseases.* 1. Nervous System:														
Encephalitis	..	..	..	..	..	..	..	..	1	..	1	..	..	..
Meningitis	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Apoplexia	..	..	1	3	1	..	3	2	..	..	2	1	1	..
Paralysis	..	..	2	1	2	..	1	..	..	..	..	..	1	1
Delirium Tremens	2	..	14	3	10	..	29	1	5	..	20	1	..	..
Mania	..	..	1	..	..	..	2	..	..	..	..	..	..	..
Amentia	..	..	1	..	..	..	1	..	1	..	3	..	..	..
Epilepsia	..	..	..	..	..	..	4	1	11	..	5	..	1	..
Cephalæa et Vertigo	..	..	8	..	3	..	13	..	19	..	5	..	3	..
Tetanus	..	..	..	..	..	..	..	..	1	1	1	1	..	..
Neuralgia	..	..	..	..	..	..	5	..	1	..	..	..	3	..
Dysecœa	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Otitis	2	..	4	..	3	..	7	..	10	..	17	..	..	..
Odontalgia	4	..	3	..	..	..	3	..	..	..	2	..	2	..
Hysteria	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Amaurosis	..	..	..	..	..	..	..	..	1	..	..	..	..	..
2. Circulatory System:														
Carditis	..	..	..	..	..		1	..	..	..	3	..	..	..
Pericarditis	..	..	..	..	1	..	1	1	..	..	..	..	1	1
Aneurisma	..	..	1	..	1	..	3	1	..	..	2	..	1	..
„ Aortæ	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Varix	4	..	3	..	1	..	5	..	1	..	..	..	..	..
Palpitatio	4	..	2	..	9	..	21	..	14	..	11	..	..	..
Morbus Cordis	..	..	2	..	..	..	64	4	8	..	1	..	..	..
3. Respiratory System:														
Laryngitis	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Bronchitis Acuta	5	..	63	..	27	..	178	..	119	..	75	1	31	..
„ Chronica	8	..	3	..	11	..	27	1	40	..	15	..	3	..
Pleuritis	..	..	..	..	3	..	4	..	14	1	..	..	..	..
Pneumonia	..	..	3	2	1	..	14	..	20	..	3	..	2	1
Apoplexia Pulmonalis	..	..	..	..	..	..	..	..	1	1	..	..	..	..
Asthma et Dyspnœa	1	..	..	..	..	..	1	..	3	..	2	..	12	..
Epistaxis	..	..	..	..	..	..	2	..	1	..	..	..	..	..
Pleurodynia	..	..	1	..	1	..	5	..	..	..	..	..	..	..
4. Digestive System:														
Gastritis	..	..	..	..	..	..	3	..	..	..	7	..	1	..
Enteritis	..	..	..	..	..	..	..	..	..	..	2	1	..	..
Peritonitis	..	..	..	..	..	..	2	2	..	..	..	..	..	..
Obstipatio	1	..	2	..	1	..	7	..	21	..	13	..	4	..

Appendix No. XII.—*continued.*

Stations	St. Helena.		Cape of Good Hope. Cape Town.		Natal.		Eastern Frontier.		Mauritius		Ceylon. White Troops.		Black Troops.	
Strength	465		664		562		3,096		1,254		913		1,564	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Local Diseases.														
Dyspepsia	4	..	4	..	14	..	61	..	22	..	39	..	2	..
Colica	4	..	5	..	1	..	25	..	15	..	13	..	16	..
Hernia Inguinalis	..	..	3	..	1	..	2	..	..	..	..	..	2	..
Hæmorrhois	5	..	4	..	4	..	22	..	12	..	12	..	4	..
Fistula in ano	1	..	..	..	..	..	6	..	..	..	2	..	..	..
Splenitis	..	..	2	..	..	..	..	..	6	..	4	..	2	..
Hepatitis Acuta	..	..	3	..	1	..	5	..	17	1	74	4	..	..
,, Chronica	..	..	9	..	5	..	6	1	30	..	44	4	..	..
Icterus	..	..	3	..	1	..	7	..	2	..	3	..	..	..
Ascites	..	..	2	..	3	1	2	..	..	..	..	..	..	..
Fistula Salivaria	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Ileus	..	..	..	..	..	..	..	..	..	..	..	..	1	1
5. Urinary System:														
Nephritis	..	..	..	..	1	1	..	..	..	..	1	1	..	..
Ischuria	..	..	..	..	..	..	2	..	..	..	..	..	..	..
Hæmaturia	..	..	..	..	..	..	..	..	3	..	..	..	..	..
Dysuria	..	..	..	..	..	..	..	..	..	..	3	..	..	..
Fistula in Perineo	..	..	..	..	..	..	2	..	..	..	..	..	..	..
Diabetes	..	..	..	..	..	..	..	..	1	..	1	..	..	..
6. Reproductive System:														
Varicocele	..	..	..	..	..	..	..	..	4	..	..	..	..	..
Hydrocele	..	..	..	..	..	..	5	..	4	..	1	..	..	..
Orchitis (not Gonorrhl.)	..	..	6	..	..	..	14	..	..	..	..	..	..	..
Sarcocele	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Spermatorrhœa	..	..	..	..	..	..	1	..	..	..	..	..	..	..
7. Locomotive System:														
Arthritis	1	..	..	..	..	..	3	..	..	..	..	..	..	..
Hydrarthrus	..	..	..	..	2	..	2	..	..	..	..	..	..	..
Contractura	..	..	..	..	..	..	3	..	..	..	2	..	..	..
Ostitis	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Periostitis	..	..	..	..	..	..	2	..	..	..	1	..	..	..
Exostosis	..	..	..	..	..	..	..	..	7	..	..	..	..	..
Necrosis	..	..	..	..	..	..	3	..	..	..	..	..	..	..
8. Integumentary System:														
Morbi Cutis	..	..	11	..	1	..	23	..	..	..	..	..	12	..
Eczema	15	..	..	..	..	..	..	..	..	..	2	..	..	..
Herpes	2	..	..	..	..	..	..	..	8	..	3	..	..	..
Impetigo	3	..	..	..	..	..	..	..	..	..	1	..	..	..
Psoriasis	..	..	..	..	..	..	..	..	..	..	4	..	..	..
Lichen	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Lepra	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Phlegmon et Abscessus	31	..	53	..	38	..	244	..	154	..	99	..	82	..
Paronychia	..	..	1	..	1	..	15	..	2	..	3	..	4	..
Ulcus	..	..	45	..	24	..	104	..	94	..	71	..	119	..

Appendix, No. XII.—*continued.*

Stations	St. Helena.		Cape of Good Hope.						Mauritius		Ceylon.			
			Cape Town.		Natal.		Eastern Frontier.				White Troops.		Black Troops.	
Strength	465		664		562		3,096		1,254		913		1,564	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
IV. *Developmental Diseases.*														
4. Diseases of Nutrition:														
Atrophia	..	..	..	..	..	..	..	..	..	..	..	..	2	1
Debilitas	..	..	11	..	..	..	6	..	..	..	3	..	..	..
V. *Violent Deaths or Diseases.*														
1. Accidental:														
Ambustio	..	..	..	..	..	..	6	..	2	..	1	..	..	..
Ictus fulminis	..	..	..	..	..	..	..	..	..	..	..	..	3	1
Submersio	..	..	..	..	..	..	..	3	..	..	..	1	..	..
Asphyxia	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Fractura	1	..	5	..	3	..	15	1	11	..	2	..	1	1
Amputatio	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Contusio	20	2	40	..	16	..	180	2	42	..	69	..	26	..
Vulnus Sclopetarium	..	..	1	..	2	..	4	..	..	..	..	..	1	..
„ Incisum	7	..	22	..	12	..	46	..	25	..	27	..	31	..
Luxatura	..	..	1	..	3	..	3	..	..	..	..	..	1	..
Subluxatio	9	..	22	..	11	..	44	..	20	..	22	..	10	..
4. Suicidal:														
Vulnus Sclopetarium	..	..	..	..	..	..	..	..	2	3	..	1	..	..
6. Punitus	..	..	2	..	2	..	20	..	17	..	6	..	..	..
Diseases not stated	9	..	30	..	8	1	102	2	41	..	11	..	7	..
Total	373	4	1286	21	513	7	2858	35	1540	16	1546	29	1133	16

APPENDIX No. XIII.

RETURN showing the Ages of the Troops serving at the Cape of Good Hope during the year 1859.

Corps.	Under 20.		20—24.		25—29.		30—34.		35—40.		40 and upwards.		Total.	
	Strength.	Deaths.	Strength.	Deaths.	Strength.	Deaths.	Strength.	Deaths.	Strength.	Deaths.	Strength.	Deaths.	Strength.	Deaths.
1 Battalion 2nd Foot ..	1	..	257	2	222	5	164	1	72	1	23	2	739	11
45th Foot	2	..	57	..	70	1	71	..	120	2	22	..	342	3
85th Foot	21	..	356	1	195	1	128	2	48	..	2	..	750	4
Cape Mounted Rifles ..	50	..	209	5	300	4	154	2	163	3	..	..	876	14
2nd Battalion 13th Foot	401	..	256	1	98	2	20	..	3	..	3	1	781	4
Total	475	..	1,135	9	885	13	537	5	406	6	50	3	3,488	36

The 2nd Battalion 13th Foot did not arrive at the Cape till the 1st of February, and the 45th left it on the 2nd of June; the necessary deductions have consequently been made from the strength of these regiments.

APPENDIX No. XIV.

ABSTRACT, showing the Admissions into Hospital and Deaths among the Troops serving in the Australian Colonies, New Zealand, and China.

Stations	Australia.		Tasmania.		New Zealand.		China. White.		China. Black.	
Strength	1,380		334		1,125		1,550		2,009	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
I. *Zymotic Diseases.*										
1. Miasmatic:										
Varicella	..	..	..	..	..	..	..	..	2	..
Morbilli	..	..	..	..	..	..	2	..	..	..
Parotitis	1	..	..	..	2	..	2	..	..	..
Tonsillitis	37	1	5	..	10	..	7	..	1	..
Ophthalmia	97	..	17	..	36	..	200	..	34	..
Erysipelas	1	..	1	..	4	..	1	1	9	1
Furunculus	..	..	..	..	1	..	12	..	..	..
Dysenteria Acuta	3	..	..	..	1	..	107	12	71	8
„ Chronica	..	..	..	..	..	..	16	1	11	1
Diarrhœa	32	..	..	..	30	1	320	11	278	29
Cholera Biliosa	..	..	1	..	..	..	..	..	..	..
„ Spasmodica	..	..	..	..	..	..	2	2	2	..
Febris Intermittens	..	..	..	..	..	..	1,118	5	1,401	24
„ Remittens	..	..	..	..	..	..	470	7	387	16
„ Typhus	1	1	..	..	..	..	1	1	1	1
„ Continua	19	1	2	..	3	1	369	7	43	6
Anthrax	..	..	..	..	2	..	..	..	..	..
Rheumatismus Acutus	28	..	1	..	12	..	69	..	55	1
„ Chronica	19	..	..	..	32	..	44	..	90	..
2. Enthetic:										
Syphilis Primaria	30	..	..	..	4	..	208	..	66	..
„ Secundaria	9	..	..	..	11	..	41	..	12	..
Iritis Syphilitica	..	..	..	..	..	..	..	..	1	..
Bubo	15	..	4	..	1	..	65	..	7	..
Gonorrhœa	80	..	24	..	23	..	153	..	42	..
Phymosis, &c.	2	..	1	..	2	..	6	..	..	..
Orchitis (Gonorrhœal)	15	..	..	..	10	..	39	..	21	..
Strictura Urethræ	5	..	..	..	1	..	3	..	..	..
Ulcus Penis	6	..	..	..	..	..	20	..	..	..
Verrucæ	3	..	..	..	..	..	3	..	..	..
Lepra Syphilitica	..	..	..	..	..	..	..	..	1	..
3. Dietic:										
Scorbutus	1	..	..	..	2	..	..	..	10	..
Purpura	..	..	..	..	..	..	2	..	..	..
4. Parasitic:										
Porrigo	..	..	..	..	2	..	..	..	..	..
Scabies	..	..	..	..	..	..	2	..	19	..
Vermes	..	..	..	..	..	..	9	..	..	..

Appendix No. XIV.—*continued.*

Stations	Australia.		Tasmania.		New Zealand.		China. White.		China. Black.	
Strength	1,380		334		1,125		1,550		2,009	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
II. *Constitutional Diseases.*										
1. Diathetic:										
Tumores	..	..	..	..	..	..	..	..	2	..
Lumbago	15	..	..	..	14	..	11	..	3	..
Anæmia	..	..	..	..	..	..	3	..	6	..
Beriberi	..	..	..	..	..	..	..	..	1	1
Anasarca	5	1	..	..	..	..	5	..	6	1
Œdema	..	..	..	..	..	..	..	..	1	..
Glaucoma	..	..	..	..	..	..	..	..	1	..
2. Tubercular:										
Scrofula	1	..	..	..	..	..	3	..	..	..
Phthisis Pulmonalis	18	4	3	2	7	..	9	1	1	1
Hæmoptysis	3	..	..	..	1	..	3	..	7	..
III. *Local Diseases.*										
1. Nervous System:										
Nyctalopia	..	..	..	..	..	..	..	..	4	..
Apoplexia	1	1	..	..	..	..	1	1	2	2
Paralysis	3	1	..	..	2	..	1	..	2	..
Delirium Tremens	5	..	..	..	7	..	31	2	..	..
Mania	..	..	..	..	..	..	..	..	2	..
Amentia	2	..	1	..	1	..	1	..	..	..
Epilepsia	5	..	..	..	2	..	4	..	5	1
Hysteria	..	..	..	..	..	..	1	..	1	..
Cephalæa	1	..	..	..	9	..	28	..	2	..
Neuralgia	1	..	..	..	6	..	3	..	..	..
Otitis	1	..	..	..	6	..	5	..	4	..
Surditas	11	..	..	..	1	..	..	..	1	..
Aphonia	1	..	..	..	2	..	..	..	..	..
Cataractes	..	..	..	..	3	..	..	..	1	..
Amaurosis	..	..	..	..	..	..	1	..	5	..
2. Circulatory System:										
Carditis	1	..	1	..	..	..	..	..	1	..
Pericarditis	..	..	..	..	..	..	1	..	1	..
Morbus Cordis	7	..	2	1	8	..	14	1	2	..
Palpitatio	3	..	..	..	..	..	8	..	..	..
Aneurisma	1	1	..	..	1	1	..	..	..	..
Varix	2	..	..	..	3	..	4	..	..	..
3. Respiratory System:										
Laryngitis	..	..	..	..	1	..	..	..	2	..
Bronchitis Acuta	63	..	13	1	113	..	118	3	88	2
" Chronica	26	..	1	..	19	..	20	..	1	..
Pleuritis	3	..	1	..	..	..	..	..	4	..
Pneumonia	2	..	3	..	..	..	12	2	20	2
Asthma	3	..	..	..	1	..	5	..	35	..
Pleurodynia	..	..	..	..	1	..	1	..	..	..
Emphysema	..	..	..	..	..	..	2	..	..	..
Epistaxis	..	..	..	..	..	..	2	..	..	..

Appendix No. XIV.—*continued.*

Stations	Australia.		Tasmania.		New Zealand.		China.			
							White.		Black.	
Strength	1,380		334		1,125		1,550		2,009	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
4. Digestive System:										
Gastritis	..	..	..	..	3	..	3	..	1	..
Enteritis	..	..	..	..	2	1	2	..	1	..
Peritonitis	..	..	..	..	..	..	2	1	..	..
Obstipatio	16	..	1	..	5	..	11	..	1	..
Dyspepsia	12	1	..	..	13	..	65	..	13	..
Colica	14	..	8	..	22	..	37	..	28	..
Hæmatemesis	2	..	..	..	..	..	3	..	..	..
Hernia Inguinalis	1	..	..	..	1	..	3	..	2	..
Hæmorrhois	7	..	1	..	9	..	22	..	7	..
Fistula in Ano	2	..	..	..	1	..	6	..	4	..
Prolapsus Ani	1	..	..	..	..	..	1	..	..	..
Splenitis	..	..	..	..	..	..	22	1	23	2
Hepatitis Acuta	9	..	1	1	1	..	28	1	9	1
,, Chronica	4	..	1	..	..	..	17	1	2	..
Icterus	1	..	..	..	2	..	8	..	5	..
Ascites	..	..	..	..	..	..	1	..	2	..
5. Urinary System:										
Nephritis	5	..	..	..	1	..	..	..	1	..
Ischuria	..	..	1	..	..	..	..	..	1	..
Dysuria	..	..	..	..	1	..	2	..	..	..
Hæmaturia	..	..	..	..	..	..	..	..	1	..
Lithiasis	..	..	..	..	1	..	..	..	..	..
Cystitis	1	..	..	..	..	..	1	..	1	..
Fistula in Perineo	..	..	..	..	..	..	4	..	..	..
Diabetes	..	..	..	..	..	..	..	..	1	..
6. Reproductive System:										
Varicocele	..	..	..	..	..	..	1	..	..	..
Hydrocele	..	..	..	..	3	..	..	..	6	..
Orchitis (not Gonorrhœal)	..	..	..	..	..	..	4	..	..	..
Sarcocele	1	..	..	..	..	..	2	..	1	..
7. Locomotive System:										
Hydrarthrus	..	..	..	..	4	..	1	..	1	..
Anchylosis	..	..	..	..	1	..	..	..	..	..
Periostitis	..	..	..	..	..	..	3	..	2	..
Necrosis	..	..	..	..	..	..	3	..	..	..
8. Integumentary System:										
Urticaria	..	..	..	..	..	..	4	..	2	..
Eczema	..	..	..	..	1	..	7	..	2	..
Herpes	..	..	..	..	..	..	6	..	4	..
Impetigo	4	..	..	..	2	..	3	..	4	..
Psoriasis	1	..	..	..	4	..	..	..	1	..
Lichen	..	..	..	..	..	..	4	..	..	..
Tinea Capitis	..	..	..	..	2	..	..	..	..	..
Pemphigus	..	..	..	..	..	..	2	..	..	..
Sycosis	..	..	..	..	..	..	..	..	1	..
Phlegmon et Abscessus	56	..	12	..	72	..	136	..	84	..
Paronychia	3	..	..	..	6	..	4	..	2	..
Ulcus	43	..	4	..	11	..	78	..	83	2

Appendix No. XIV.—*continued.*

Stations..	Australia.		Tasmania.		New Zealand.		China.			
							White.		Black.	
Strength	1,380		334		1,125		1,550		2,009	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
IV. *Developmental Diseases.*										
4. Diseases of Nutrition:										
Atrophia	..	..	..	..	..	..	..	..	38	1
Debilitas	..	..	..	..	1	..	42	..	107	6
V. *Violent Deaths or Diseases.*										
1. Accidental:										
Ambustio	7	..	..	..	3	..	5	..	4	..
Insolatio	..	..	..	..	..	..	1	1	..	..
Submersio	..	1	..	..	..	1	..	1	..	..
Fractura..	2	1	2	..	6	..	2	..	2	..
Contusio..	55	..	4	..	73	..	40	..	41	..
Vulnus Sclopetarium	..	..	..	..	1	..	19	..	..	..
„ Incisum	15	..	6	..	11	..	13	..	10	..
Luxatura	2	..	9	..	5	..	2	..	..	..
Subluxatio	23	..	..	..	16	..	21	..	3	..
Amputatio	1	..	..	..	..	..	..	..	..	..
6. Punitus	1	..	1	..	..	..	5	..	1	..
Diseases not stated	36	..	7	..	35	..	80	2	6	..
Total	913	14	139	5	716	5	4,314	65	3,283	109

REPORT

OF THE

SANITARY BRANCH FOR 1859.

BY

T. G. LOGAN, M.D.,

INSPECTOR-GENERAL OF HOSPITALS AND
HEAD OF THE SANITARY BRANCH.

TO THE DIRECTOR-GENERAL
OF THE
ARMY MEDICAL DEPARTMENT.

Sir,

Agreeably with instructions prescribed for the conduct of business by the Heads of Branches of the Army Medical Department, I have the honour to report to you, with relation to the Sanitary Branch, for the year 1859.

The Home Stations of the Army.

The special sanitary duties of Medical Officers, instituted by the new Code of Regulations, not having been generally entered upon until after the publication of those Regulations in a complete form in October of this year (1859), the discharge of these duties, consequently, bore upon too limited a remaining portion of the period for sufficient results to be gathered as to details, and such as to afford matter for any comprehensive report on this occasion. A general allusion can, in consequence, alone be submitted under the main heads of sanitary reference.

1. The leading hygiènic measure of the year was the extension of the new system of ventilation, introduced by the Barrack and Hospital Commission, to the principal barracks and hospitals in the United Kingdom and Ireland.

2. In the means of personal cleanliness much was done, and at various stations; better furnished lavatories provided for the use of the troops; baths put up, so as to afford means of more private and thorough ablution, and in the proportion of 1 per cent. of strength, in most barracks of magnitude and importance, the intention being the gradual provision of this necessary element of comfort and health in all.

3. Latrine and urinal accommodation, at stations where more urgently required, also met with, from time to time, improvement or extension.

4. The drainage and sewerage of camps, barracks, hospitals, &c., were brought by the new sanitary regulations under the surveillance of the Medical Officers, and much future benefit must result to the health of the troops from

this duty of supervision, whereby all defects on these points are to be represented to the authorities for consideration of such early remedies as may be applicable.

5. Generally, it may be stated, the troops were supplied with rations of a fair average quality at contract prices, and the soldier's interests in this respect may be said to be at all times protected, as any deterioration of supplies can be immediately checked, the system of holding Boards of Survey (of which a Medical Officer is a member) proving a sufficient guarantee against inferior or defective articles of bread or meat being introduced. On such occasions, if necessary, the substitution of better provisions is enforced at the contractor's expense.

The extra ration of groceries, by the scale of which the soldier is provided, through the Commissariat agency, at stations where available, with sugar, coffee, tea, salt, pepper, &c., in fixed daily quantities, must prove a great boon in securing to him sounder articles, at a very small daily stoppage from his pay, than he could possibly obtain otherwise for himself. This extra ration furnishes also to him an additional quarter of a pound of bread per diem.

6. Means of Cooking.—Under this head great improvements have been introduced at many stations, and means afforded of varying the mode of cooking the men's food, which cannot fail to exercise a beneficial influence upon their health.

7. In the military hospitals a new scale of diet was brought into general use, and with great advantage to the patients, whether in sickness or convalescence.

8. The drinks and canteen supplies for the troops, hitherto subject to no sufficiently systematic observation, will henceforth come under frequent notice and report of the Medical Officers as a portion of their sanitary duty, and it is to be expected that the sale in these establishments of inferior, adulterated, or noxious articles will, through surveillance and representation to the military authorities, in a great measure be prevented.

9. In the clothing of the troops there was no important change of a general character; but over (watch) coats, for the protection of men on sentry by night, and during inclement weather, articles which had been introduced at Aldershott in 1858, and found very beneficial, were supplied at many other stations.

10. The duties of the troops on the home service were of the usual character; varying from the healthy military exercises by day, with a large proportion of nights in bed, at the

several camps, to the more arduous duties of frequent guards, and greater night exposure, in the dock-yard garrisons; but they do not appear to have exercised any marked prejudicial effect upon the health of the men at any station.

The sanitary transactions of the year at the Foreign Stations, from whence reports have been received, may next be passed in review successively.

The Ionian Islands.

The average state of health of the troops at the several islands, throughout the period, speaks for itself as to their duty and employment having been neither excessive nor in any way injurious. The only exception to such general condition of health occurred for a time at Fort Neuf, a locality under unfavourable sanitary circumstances, being close to the point of discharge of town sewage, which contaminates, to a wide extent, the tideless water of the bay at the immediate base of the fort.

In June the strength of the garrison of Corfu was increased by about 1,100 men; to meet which increase several alterations and additions to the accommodation were made. The offices of the Royal Engineers and Military Store Department, previously occupying a portion of the best barrack in the citadel, were removed, and the families of married soldiers (to the extent of eighteen families) were lodged in a well-aired house hired for them, thus materially relieving the barrack. Five brick huts were built on suitable ground on the Island of Vido, for 140 men, with kitchen and ablution room. Four comfortable, although temporary, wooden huts were also, in the autumn, erected at Fort Abraham; these, with the large barrack room previously existing at this post, afforded good accommodation for two companies of a regiment.

A roomy and well-ventilated gymnasium was erected within the citadel, a great desideratum, especially during the summer months. It was also contemplated that similar means of healthy exercise and recreation should be provided at Fort Neuf, at Vido, and probably at Cephalonia and Zante.

Many alterations and improvements were effected in the hospital accommodation at Corfu in course of the year. Its administration was changed from that of the regimental to the general hospital system, an arrangement by which an increase of accommodation for the sick (so necessary to meet the augmentation of the force) was obtained. A further

extension of accommodation for sick of the garrison was proposed by the Principal Medical Officer, who recommended that a hospital for forty patients should be constructed on the Island of Vido, and one for ten or twelve at Fort Neuf.

In regard to the diet of the soldiers, the system of supply through the Commissariat, by which, at an additional daily stoppage of $1\frac{1}{2}d.$ a-day, they are furnished with extra bread and groceries, instead of going into the market for them, has worked very satisfactorily and beneficially, the Government supplying superior articles at a much cheaper rate. At Corfu, particularly, abundance of good and cheap potatoes and fresh vegetables of all kinds was obtained.

Generally, in the islands, the meat was of fair quality, and as good as the neighbouring country could produce. In the citadel of Corfu, at Fort Neuf, and at Vido, there was afforded every facility for the men to have their meat baked as often as they wished.

The duties throughout the Command were light, the men having had, on average, seven nights in bed to one on guard.

Malta.

The leading circumstance, bearing upon sanitary considerations, in this Command was the prevalence of a severe form of fever in the corps occupying the St. Elmo Barracks, but due means were taken to arrest the progress of the disease, the source of which was traced to defective drainage and sewerage, and further measures were proposed to improve the sanitary condition of these barracks especially.

On other points connected with the health of the soldiers, the supplies for their diet were good, and the duties were generally not more than such as tended to maintain an average good standard of health.

The accommodation as to cubic space per man in the various barracks and detached forts, during this year, remained very limited, and to a great extent unequalized; but a Board of Officers was appointed for the purpose of inquiring into this subject, with a view to a re-adjustment of the numerical occupation of the quarters throughout the island.

Gibraltar.

Deficiency of barrack accommodation in this garrison formed the main portion of the Principal Medical Officer's

Annual Report, and was the subject of representation by him to the authorities. Notification of an intended outlay by the Government (in 1860, and further in 1861), for the purpose of extending the accommodation, was received.

The sewerage and drainage of the town of Gibraltar, being upon a very defective system, greatly involve the sanitary welfare of the troops, many of the barrack buildings being immediately within the influences of such evil.

More exclusively, however, connected with the interests and comfort of the troops, much improvement is still required in the garrison as to the construction of the latrines, the provision of barrack lavatories, baths, &c., and a better and more abundant supply of water, the latter, at certain seasons, especially when the contents of the reservoir tanks are lowered, being found to be so loaded with organic impurities that the use of drip stones becomes absolutely necessary, and these were accordingly recommended to be distributed in certain proportions throughout the barracks.

The Windward and Leeward Islands.

At *Barbadoes* the results as to the health of the troops were satisfactory. No measures of any very special sanitary kind were carried out in the garrison, but certain defects of accommodation in the wash-house of the principal barrack, in the guard-room of the same, and in the sanitary condition of the married soldiers' quarters were duly made the subjects of report.

At *Trinidad*, the question of the position of the barracks at St. James's engaged attention in consequence of an outbreak of an epidemic of yellow fever amongst the troops occupying them, in September 1858, and which continued till February 1859, the disease being prevalent nowhere else in the island during the time.

Consequent upon the mortality at St. James's, a Commission was appointed for the selection of a more appropriate locality for the cantonment of European troops, and, if possible, on a hill site, a desideratum forcibly suggested by the experiment of the mountain station of Newcastle, in Jamaica.

Of the above Commission Dr. Ross Jameson, Deputy Inspector-General of Hospitals, was appointed a member, and, as *ex-officio* the sanitary representative, he submitted the following memoranda for the joint consideration of his colleagues:—

"1. The great cause of tropical disease (be that what it "may) cannot exist beyond a certain height above the level of "the sea.

"2. Judging from experience, more especially as derived "from the history of the mountain stations of Jamaica, this "height, within certain limits and under certain conditions, "is variable. Under all circumstances, however, 2,500 feet "is the very lowest elevation where, in a sanitary point of "view, it would be judicious to locate troops in the West "Indies, and a much greater height (say 4,000 feet) is "always to be preferred when practicable.

"3. The edge of a table-land is (*cæteris paribus*) less "advantageous than any other part of such a position. The "crest of a serrated mountain is likewise to be avoided if "possible, both for the same reason, viz. :—

"The cause of tropical disease, when generated in the "subjacent valleys, can be carried upwards to a very consi- "derable height. Hence, in estimating the probable salu- "brity of either locality, attention must be paid to the "supra-marine elevation of the neighbouring valleys or "ravines, as well as to the actual height of the locality "itself.

"4. With reference to Trinidad, as it is some degrees "nearer the Equator than Jamaica, due regard should also "be paid to the botanical productions of the mountain "ranges inspected. As long as these remain purely tropical, "a sufficient elevation to insure absolute safety has not "been attained."

The greatest height in the Island of Trinidad is estimated not to exceed 3,000 feet. A site, at about 2,200 above the sea-level, was considered by Dr. Jameson as probable to be superior, for the sanitary condition of European troops, to any other available spot on the island, however much it might fall short of the standard of salubrity enjoyed at the Jamaica station, Newcastle.

The year closed without any decisive results from the Commission's inquiry, military consideration of the necessity of proximity to Port of Spain, the chief town of the Island, competing with the more purely sanitary question.

From the other islands of the Windward and Leeward group there have been no reports indicating any special sanitary transactions as adopted in course of the year.

Generally, the troops throughout the Command were not called upon for any beyond the ordinary light duties. The provisions supplied to them were of as good quality as could be furnished by the Commissariat, and the meat

portion of the men's rations consisted of salt pork or beef one day a-week, fresh meat being supplied for the other days. Vegetables were, at St. Lucia, not so abundant as could have been desired, but at other stations sufficiently so.

Jamaica and its Dependency at Honduras.

From this Station there was little in the reports of 1859 for specific notice.

During the year glass sash-windows were substituted for the open jalousies in the hospitals at Up Park Camp and Port Royal, an arrangement which had been found very requisite for these establishments on sanitary considerations. The latrines at Up Park Camp and Kingston were placed in process of improvement from a previous very defective state. Drainage operations were also begun on the marshy ground at the station of Stony Hill.

Honduras may here be adverted to as a station under the Jamaica Command. With the exception of a very few men of the Royal Artillery, it is garrisoned by a detachment of black troops. At the principal military post, Belize, the Senior Medical Officer recommends the provision of entirely new barracks, and represents the necessity for more tanks for the water-supply. He also suggests that the marsh in rear of the New Town Barracks should be drained and cultivated, and a tract of bush in their neighbourhood be cut down, and a clearance made which would prove of much benefit. These sanitary measures must, it may be inferred, involve the question of time and means.

Bermuda.

The inadequate barrack accommodation rendered a strict enforcement of sanitary measures peculiarly necessary, and, beyond doubt, that of encamping about one-half of the troops during the summer months was the great means of preservation of their health during this season.

For the head-quarters of the regiment stationed at St. George's, and its detachment at the central town of Hamilton, new barracks, on the enlarged sanitary principles of the day, are much demanded by the specialty of the climate, and the frequent epidemics of yellow fever.

Greater means of amusement and physical recreation are still an especial requisite, to divert the men from

degrading habits of intemperance. A reading-room at St. George's, more commodious and more widely supplied, was stated to be much wanted; and a gymnasium would, no doubt, prove a great and salutary boon towards filling up, with interest, the many tedious hours of an otherwise listless day.

Nova Scotia.

The cubic space per man in garrison at Halifax had been generally insufficient, but a new barrack, near Fort Needham, would be ready for occupation soon after the close of the year.

Many sanitary defects as to system of latrines, the want of proper ablution rooms in the citadel of Halifax, and increased means of ventilation in certain casemated barracks, were brought to notice. The means of roasting and baking meat in the barrack kitchens had been defective throughout the Command. Ovens were, however, in course of construction in four of the barracks at Halifax, an initiatory towards a general measure of the kind. Many cases of pulmonary disease having been considered attributable to wet feet on duty—the soldier's ordinary boot being of insufficient fabric to resist thaws and slushes of snow—a provision of what are called American "rubber-boots" for the men on guard was strongly recommended by the Principal Medical Officer.

The sickness and mortality in the Command, notwithstanding many sanitary defects yet unmet, proved to be inconsiderable, and were not attributed by the Principal Medical Officer to any general causes or influences susceptible of direct remedy or improvement.

Canada.

The reports from this Command pointed out intemperance and a want of mental occupation and active bodily exercises as causes of disease.

Limited cubic accommodation and a want of means for variety in cooking the men's diet are also mentioned.

The prospective withdrawal of a regiment from the station, would, however, obviate the want of barrack accommodation, as to the cubic allotment, very materially; and the deficiency of cooking apparatus was to be brought under the consideration of the authorities.

St. Helena.

The duties of the corps stationed on this island partake of no severe character. In addition to their ordinary drills, guards, and parades, the men perform occasional "fatigue" duties connected with the Commissariat Department, in landing coals, provisions, &c., for the garrison, and supplies for the Royal Navy, and for which they receive a working pay.

In regard to barrack accommodation, the married soldiers' huts were brought under the notice of the local authorities, in special communications, by the Senior Medical Officer, who represented them as unfit for occupation in a sanitary point of view; and improved conveniences and extended cubic space in the barracks were also recommended by him. Each man had about 650 cubic feet, but still an insufficiency for the climate.

The hospital is commodious for the force, and is well ventilated.

The diet of the troops was judiciously regulated, and afforded the best variety which the produce of the island admitted. A regimental garden here affords an abundance of fresh vegetables, in good variety, for a considerable portion of the year, and at an almost nominal rate, to pay for seeds and implements.

On three days of the week fresh meat (beef or mutton) is supplied to the men; salt beef or pork on the other four; the only objection being the very inferior quality of the salt beef supplied from the Cape of Good Hope, a circumstance it has since been arranged to remedy by having all salt provisions of the kind furnished from England. The water supply is, usually, abundant and sufficiently pure. A new bath room for the men was added.

In the way of amusements for the troops, a temporary fives' court had been fitted up, and skittle-grounds for each barrack were made the subject of renewed recommendation; also that these grounds should be covered over, so as to admit of resort to them by the men at all leisure hours of the day, without evil consequences from exposure to the sun.

Cape of Good Hope.

A Sanitary Report by the Principal Medical Officer, but which bears only on the earlier portion of the year under review (1859), sets forth in general terms that the more valuable

and urgent of the suggestions, emanating from the various executive Medical Officers serving at the many and widely detached stations of this Command, were individually submitted to the military authorities, and that efforts were made to apply all practicable means for correction of any sanitary evils admitting of amendment.

In June of this year, the Director-General, the late Mr. Alexander, submitted a proposition to the Authorities, recommending that the Cape (Cape Town or its neighbourhood) should be tested as a Sanatorium for invalid soldiers from India, to many of whom he conceived it would prove a restorative. From much personal experience of its provinces as to climate, he had also previously submitted a suggestion that, considering the large force of Europeans requisite in India, and likely to be so in future, a general depôt of troops might advantageously be established in the eastern districts of the Cape, for all regiments serving in India; that recruits might be sent to this depôt; and that, as after being there accustomed to camping, and more or less to a practical field life, they would become inured to climate, they might be drafted to India as exigencies required, for which service he thought they would then be found much more effective than the numerous detachments of lads of undeveloped constitutions annually dispatched from England to India, and destined, in too many instances, to succumb there to climate during the first hot season. He was, further, of opinion, that men, found unfitted for India, might continue to serve efficiently at the Cape and that, in many instances, the climate of the latter would be preferable for certain constitutions even to England.

Mauritius.

No important measures of a sanitary character were carried out, either as to the barrack or hospital accommodation for the troops at this island. The site of the hospital at Port Louis is pronounced objectionable, and the selection of a better is projected when colonial funds shall afford the opportunity for construction of a new one.

The Australian Colonies.

At *Melbourne* the position of the barracks, on the border of an extensive undrained morass, liable to inundation from the River Yarra, must, in sanitary respect, ever remain one

of most objectionable choice, notwithstanding it is conceived that remedy might be applied, to a great extent, by engineering efforts, the ultimate cost of which would be repaid, not only in the preservation of health, but also in value of reclaimed land. The views of the Colonial Government are, however, it is stated, not ascertained on this subject. With regard to the military hospital at Melbourne, steps have been proposed to remove the establishment to another and less objectionable site than at present held with relation to the locality of the barracks.

At *Sydney*, defective drainage of the barracks was reported as still existing, and much was yet unprovided for the troops in respect of the means of ablution and varied cooking. Intemperance was reported to be both a direct and indirect cause of disease. The soldier's comfort, and attractive means towards his healthful recreation, being insufficiently provided for, were circumstances reasonably assumed to lead to the vice in no inconsiderable degree.

Hobart Town.—Correspondence arose on the subject of the want of any proper means of ablution for the troops, and on the defective state of the hospital and barrack latrines. Steps were taken to meet the former necessity for the men. Want of colonial funds, as represented, unfortunately postponed remedy of the latter.

New Zealand.—Throughout this Command, many sanitary wants were still unmet. At the head-quarter station, Auckland, a distinct military prison was especially needed, also a fives' or racket-court for the healthy recreation of the men, an inclosure of the hospital grounds for purposes of discipline, and a rectification of an offensive system of the barrack latrines. At Wanganui, greater and improved barrack accommodation was called for, and increased cubic space for the cells attached to the guard-house. At the post of Napier, a detached hospital was required, the sick at this station being unavoidably and very disadvantageously accommodated in a barrack-room.

Additional facilities for variety of cooking for the troops were greatly required at all the stations.

The foregoing defects and sanitary wants in the New Zealand Command were brought under notice of the local military authorities, and, in further course, submitted for the consideration of the home authorities, with a recommendation for their remedy and fulfilment.

The issue of the latter representation was, in reply, to the effect that the state of the colonial funds would not admit of the measures being effected in whole, but that it had been

recommended to the Colonial Government that the more urgent works might be attended to at once.

Ceylon.

Various movements and exchanges of the detachments of European troops were recommended by the Principal Medical Officer upon sanitary grounds, the recommendation was accepted by the authorities, and acted upon in the month of December. Beneficial results to health were anticipated. Improvements in hospital accommodation, at certain of the stations, were submitted for consideration of the Government authorities, and defective drainage of the Fort of Colombo and of the European parade-ground at Galle, was brought under notice of the Executive.

India.

In the *Bengal* Presidency, this year, circumstances were very exceptional throughout most of its upper provinces, and efforts were urgently continued to provide barrack and hospital accommodation, of permanent or temporary character, to meet the requirements of a largely-increased European force separated into cantonments after field-service during the mutinies. The period required the active supervision and constant care of the Medical Officers for preservation of the health of the troops at many Stations, especially where they, unavoidably, were under insufficient shelter from climate during the hot season. The monthly Sanitary Reports received from the Officers evinced the great activity and close attention they must have devoted to all matters of drainage, cleanliness, and sanitary police of cantonments, camps, and their vicinities, ventilation of barrack-dwellings, means of ablution for the soldiers, and the many other details connected with the health of the men and the duties of Sanitary Officers; the Senior Medical Officer present at each Station having been appointed to the special and responsible charge, as Sanitary Officer, his diary of transactions was systematically submitted to the Inspector-General of Hospitals.

Madras.—At many of the Stations occupied by the British regiments the barracks were in a transitional and improving state. A new cavalry barrack was in process of construction at Bangalore, on the race-course, and was reported as being placed on high ground, free from any obstructing circumstances as to ventilation. The Principal Medical

Officer, the Deputy-Inspector-General of Hospitals, gave his opinion that the duty and employment, in cantonment or garrison, exercised no injurious effect on the health of the troops, many of whom, however, had been subjected to severe exposure during the late mutinies, and may have thereafter suffered more or less. It was thought the vice of intemperance was diminishing, and hope was entertained that, with increased sources of employment and recreation as afforded by gymnastics, racket-courts, reading-rooms, &c., the taste for the debasing vice would be found to wear out. Many such proposed means, however, were negatived, for the present, on financial grounds.

The newly-established red serge frock was found to answer well as a substitute for the cloth tunic, the only objection to the former being its nondurability; an improved manufacture might remedy this particular defect. The shako was no longer in wear, and the wicker helmet with white cotton cover was much approved of and in general use.

In the diet of the troops, an improved quality of meat, and, at many Stations, a more abundant supply of vegetables, would have been desirable, could they have been procured.

In the furniture of the soldiers' bedding and bedsteads, generally defective throughout India, little improvement had taken place in this Presidency, although pressing representations appear to have been made on the subject through its highest military authority. Iron cots were recommended for more general use.

Bombay.—The Annual Sanitary Report of the Principal Medical Officer had been received up to the 31st March 1859 only. He states that due means were adopted, during the term of his report, by the Government and military authorities to remove, if possible, any causes of disease among the troops. Careful surveillance appears to have been exercised in regard to the quality and quantity of the soldiers' dieting, to proper adaptation of their dress in relation to season, climate, period of day or night, in which they were employed, and to circumstances of field-duties.

In respect of the troops not employed in the field (including some regiments newly-arrived in the country), their sanitary condition, from their not having been exposed as others had been consequent upon the mutinies, was generally satisfactory.

China.

Under limit of report, on this occasion, to the close of 1859, it may be stated that, in the regiment quartered at

Hong Kong, the surgeon was of opinion that the night duties, and insufficiency of nights in bed, to a certain extent predisposed the men to the diseases of that insalubrious climate. The Principal Medical Officer concurred in such opinion, and added, further, of his own, that prolonged fasting while on night duty, and want of adequate barrack accommodation for the climate, were greatly accessory; the whole of these alleged causes met with his careful consideration, and, at the time of concluding his annual general Sanitary Report, were obtaining such remedies as the exigencies of the service and time would permit.

The topographical character, however, of Hong Kong was acknowledged to preclude improvement to any considerable extent in the health of European troops, and its retention as the chief military station of the Command could not be thought desirable in a sanitary point of view.

The Principal Medical Officer's report refers to the circumstance that the annual expenditure of men by death and invaliding had been averaged at 20 per cent., being more than double of what it is in India, and that, notwithstanding every means had been taken, and no expense spared, to preserve the health of the troops, the results were still very unsatisfactory.

The lamentably reduced state of health in which the 59th Regiment embarked from Hong Kong, and the high rate of sickness in the relieving corps (the 2nd Battalion Royals), almost immediately upon their establishment at the station, raised the consideration early in this year whether a hill-site on the island could not be made available for the purpose of a local sanitarium to some extent. After an examination of three or four sites, one under the Victoria Peak, and about 1,400 feet above the sea, was ultimately concluded to offer the best advantages, and, from experience of the value of elevated positions in the East and West Indies, a trial of this site was finally recommended. It was found to be of a temperature 10 degrees lower than that of the town of Victoria, and the locality promised sanitary advantages in regard to a supply of good water, of very perfect natural drainage, and in offering a front to the south-west monsoon and its cooling influence. The ascent could be rendered practicable by improvement of the pathway in little more than an hour or so from the town and barracks.

It remained a project to establish huts for forty or fifty men to initiate the experiment, when circumstances of the impending war supervened.

Hostilities having been decided upon, and preliminary arrangements undertaken for the formation of the expeditionary army, the furnishing of its supplies, and the selection and fitting up of the hospital ships, the following suggestions had also been submitted by the Director-General for the consideration of the Minister of State for War, with a view to the preservation of the health of the soldiers to be engaged on the service :—

1. That marquees and tents be issued in sufficient number for the officers and men.

2. That, in addition to the usual Indian clothing, a supply of flannel shirts, flannel drawers, cholera-belts (flannel), worsted socks, flannel serge trousers, blankets, well ventilated helmet-shaped solar topees, good boots of English manufacture, and long knee-boots of the same description, water-proof long cloaks, and water-proof sheets, be provided for the use of the troops.

3. That the Commissariat Department be requested to send out a large supply of lime-juice for the use of the force; also preserved meat in tins; beef slightly salted, but sufficiently so to keep for a certain period (a regular supply of which should be forwarded from time to time); preserved potatoes and other vegetables, so as to be available when fresh vegetables cannot be procured. Ale and porter to be given out as a ration, and rum sent in sufficient quantities for occasional use, and under circumstances when malt liquors are not forthcoming. That coffee, roasted and ready ground, be supplied, and tea (which no doubt could be obtained on the spot). That when meat, although fresh, may be of poor quality and not sufficiently nutritive, a greater quantity than one pound of it be allowed as the ration; and that supplies of flour be sent, and ovens provided, as well as a party of experienced bakers, so that bread may be supplied regularly to the troops.

4. That a stock of quinine wine be provided, in order that a ration of it may be given to the men (at the recommendation of the Principal Medical Officer), previous to, and during the unhealthy months, or when the soldiers are required to proceed up rivers, or on being encamped in the vicinity of marshy ground. A medical officer should be present when the quinine wine is issued, and to witness the same being drunk by the men.

5. That no more than one day's ration of food, malt liquor, or spirits, be issued to the soldier at a time; unless under peculiar circumstances, and by the order of the Officer commanding.

6. That arrangements (if possible) be made so as to insure troops, proceeding on any duty before breakfast, being furnished with a cup of hot coffee or tea, before they start.

7. That a supply of "Soyer's Camp-cooking Apparatus" be sent out, in order that the cooking may be properly performed, and in messes.

8. That a sufficient number of iron store-houses be forwarded, and placed in charge of store-keepers.

9. That all bales or boxes should not weigh above 100 lbs. each, so as to be convenient for transport by coolies, mules, or ponies.

10. That a hundred pairs of cacolets, and a hundred litières, with pack-saddles, surcingles, and bridles complete, be sent out.

11. That a large supply of disinfectants be forwarded for the use of the force, and that men from the different ranks of the Medical Staff Corps, be sent out in sufficient numbers for every hospital establishment, whether general, regimental, ships, &c.

Under the new Medical Regulations for Field Service, a Sanitary Officer to the Expeditionary Army, and to be attached to the Quartermaster-General's Department, was selected and furnished with instructions for the performance of his special duties, as conveyed in the annexed Memorandum :—

1. You will accompany the Quartermaster-General, Deputy, or Assistant Quartermaster-General of the Force, or such Officer as he may appoint, on each occasion of selecting buildings for occupation by troops, whether as hospitals or quarters, temporary or for more permanent purpose. You will carefully examine into their sanitary condition, as respects cleanliness around and within the buildings, drainage, ventilation, facility of water supply, and all other points likely to affect the health of the troops, or welfare of sick ; and you will advise the Quartermaster General, or his Deputy, on all such points, pointing out every sanitary defect requiring removal or remedy.

2. Whenever troops are to be landed for the occupation of towns, villages, or points of the country, you will make a careful survey of the same, and submit recommendations for organizing a proper sanitary police to preserve cleanliness, and for the removal of nuisances as well as for the execution of all measures you may consider necessary to protect the health of the troops in occupation.

3. On the selection of any site for an encampment becoming requisite, you will proceed with the Quartermaster-General or his Deputy, for the purpose of submitting your opinion on the salubrity, or otherwise, of the proposed position ; and, when the locality shall have been decided upon, you will make such recommendations as you may deem necessary respecting the preparation of the ground, the distance of tents or huts from each other, the number of men to be placed in each, (taking into consideration exigencies of the service, as they may from time to time arise and vary) ; the maintenance of cleanliness throughout the camp ; the best means of securing and preserving in a state of purity the supply of water for the use of the troops ; the position of latrines and slaughtering-places ; the early removal of all collections of refuse, and its disposal by burning, or otherwise ; also as to the interment of the dead, and burying of carcasses of animals, &c., at sufficient distances from the camp—to obviate evil consequence to the health of the troops. You will also bestow great attention on the general drainage within the camp, and in proximity to it.

4. You will keep yourself constantly informed of the general condition of any occupied town or camp, including all hospitals, as to the general cleanliness and ventilation, pointing out all defects of these, and of the surface drainage, with a view to the earliest remedy ; as also of other local matters affecting the health of the force, wheresoever distributed.

5. You will make a daily inspection of the whole camp, or occupied portion of a town, giving your earliest attention to the appearance of any disease likely to become prevalent among the troops; examine into the cause of the same, whether such disease proceeds from, or is aggravated by, sanitary defects in cleansing, drainage, nuisances, over-crowding, defective ventilation, bad or deficient water supply, dampness of site, marshy ground, or from any other local cause, or from bad or deficient food, intemperance, unwholesome liquors, unripe and unsound fruit, defective clothing, want of proper shelter, fatigue, exposure of the men to too great heat or vicissitudes of weather; upon all specialties of which kind you will immediately submit a report to the proper authorities, viz., the Officer commanding and the Principal Medical Officer, setting forth, also, on the occasion, the remedial measures you would propose for their removal. You will observe the due carrying out of these, and report daily upon the results of the same for the information of the General in command of the force, and for so long a time as may be necessary; sending copies of such reports and recommendations to the Principal Medical Officer.

6. Whenever the troops may have to advance, by line of march, you will accompany the Quartermaster-General of the force, or the officer acting for him, and collect as much information as possible in regard to the medical topography of the district, with special reference to places which ought to be selected or avoided for camping grounds.

7. Should the force have to advance through malarious districts, or at unhealthy seasons, you will indicate the best means of mitigating or preventing attacks of disease on the march or advance.

8. With reference to the above object, it will be very requisite that the men should have some refreshment, as coffee, before marching, and, from the very favourable result of its use in the China Command, quinine wine is to be recommended for use during the months when fever and bowel complaints prevail, or at any epidemic season; and of this prophylactic each man should have a daily ration, to be taken in the presence of a responsible officer.

9. In the case of operations by river you will recommend that, before any troops are disembarked for action on shore, they should have refreshment, as coffee or tea, if it be at an early hour, before leaving the ships; and, should they return on board the same day, proper arrangements should also be made for their refreshment, without delay.

10. In the course of river expeditions, you must, if possible, daily visit each vessel conveying troops, make inspection, and inquire into all sanitary circumstances on board, the general cleanliness, effectiveness of ventilation, the regular and proper use of deodorants and disinfectants between decks, &c., urging upon the medical officers the strictest attention to these points, and that they should make daily inspections of the men under their charge, in order to detect the earliest appearance of scorbutic or other zymotic disease, especially Asiatic cholera, among them.

11. It will be your duty, systematically and regularly, to inquire into and examine the nature of the supplies and provisions for the troops, also into the constitution of the soldier's ration, and whether it is sufficiently varied in its constituents and amount. You will also satisfy yourself as to the sufficiency of the means and appliances for

cooking, and whether the rations are properly cooked, immediately reporting all failures and special defects, with your recommendations, in these respects, for the information of the General Officer in command and Principal Medical Officer.

12. As the force may be expected to encounter great variety and considerable extremes of climate, it will become an important duty for you to regard the clothing of the troops, so as to recommend that it be adapted and modified to the exigencies of weather and season, especially considering the night duties, and those entailing exposure to the sun. Further, on this subject, it has been experienced that a great evil to be guarded against in China is the influence of sudden chills, and the best efforts of every officer and non-commissioned officer should be directed to prevent the soldier sitting in huts, tents, &c., with his outer clothes off, or heedlessly open.

13. Under the circumstances of the war, scurvy may be expected to be met with to a considerable extent, and, therefore, lime-juice, with sugar, in the shape of a ration, should be issued to the troops generally, three or four times a-week, and the men should be seen to consume it.

14. With the sanction of the General in command, and that of the Principal Medical Officer, immediately on commencing your duties as Sanitary Officer, as well as upon all subsequent occasions that may be necessary, you will issue such instructions, regarding sanitary precautions to be observed for protecting the health of the troops, as may be deemed requisite for the guidance of Medical Officers in carrying out the same in their respective charges.

15. You will obtain, weekly, sanitary reports from all Medical Officers in charge of troops, drawing up from them a general report upon the sanitary condition of the army, for the information of the Commander of the Force and Principal Medical Officer, and you will transmit through the latter a fortnightly report to the Director-General, embracing all the specialties of sanitary occurrences and transactions that have taken place during the period.

16. It is to be clearly understood that the Principal Medical Officer is to be kept minutely informed of all recommendations and reports which you have deemed it necessary, in the performance of your important duties, to make to commanding or other officers.

17. Local circumstances will, doubtless, present many conditions beyond the scope of these general instructions, and to all such it will be your especial duty to bestow your best judgment and constant care.

It being intended to publish, from year to year, selected papers on Medical Topography of Stations, with the local and special influences on the health of the troops, an arrangement by which Medical Officers, in a course of years, may be in possession of a valuable range of information as to the principal stations where troops are called upon to serve, the following are submitted, on the present occasion:—

1. A report on the climate and topography of Deesa, Bombay Presidency, by Surgeon W. Hanbury, 33rd Regiment.

2. A topographical and descriptive account of Mount Aboo, a hill sanatorium, within forty-five miles of the former, by Dr. Ogilvy, Assistant-Surgeon, 33rd Regiment.

These papers are of especial interest at the present time of the question of the future cantonment of European troops in India.

3. A topographical and sanitary report of Umballa and its vicinity, one of the main military stations of Upper India, by Dr. Kendall, Surgeon, 7th Hussars.

4. Ghazeepore, in one of the lower districts of the same (Bengal) Presidency, by Mr. Fleming, Surgeon, 37th Foot.

5. An abstract of the Annual Medical Report of the detachment of the Royal Engineers stationed in British Columbia to the end of December 1859, with Table of Meteorological Observations taken during the year ending 31st May, 1860, by Staff Assistant-Surgeon Seddall. This short narrative of a special service on new ground of a young colony may present a corresponding interest.

6. A report on the topography of the military stations in British Guiana, with a brief account of the colony, &c., by Surgeon-Major H. C. Reade.

I have the honour to be,

Sir,

Your most obedient Servant,

T. G. LOGAN,

Inspector-General of Hospitals.

Report by W. Hanbury, Esq., Surgeon 33rd Regiment, on the Climate and Topography of Deesa, Guzerat.

1. *Topography.* — The province or district of Guzerat represents a flat, fertile plain, little elevated above the sea. In this district Deesa is placed, at the northern extremity or angle; the range of hills upon which the Sanatorium at Mount Aboo is built extending on the north and east, at a distance of thirty or forty miles, "The Runn of Cutch" and the Gulf of Cutch being to the west, and the station and city of Ahmedabad to the south, and distant about ninety-five miles. A small river, the Binmass, which takes its origin among the hills above referred to, flows in a full stream, close to the bazaar and village of Deesa during the rainy season, and empties itself into the Gulf of Cutch, but, throughout the greater part of the summer, the river bed contains scarcely any water, and gives passage only to a small trickling rivulet. To the north-east of this river, and of the village of Deesa, is the military station of Deesa, nearly two miles distant from the latter, but closely abutting upon the former. The station thus situated covers a triangular tract of deep, sandy, fertile loam, the aspect of which slopes, with tolerable uniformity, towards the river and the bazaar; a shallow, open, sandy nullah bounding it on the southward, and a similar nullah on the north separating the Horse Artillery Barracks and Native Infantry lines from the barracks for European troops. The nullahs commence on either side of the European lines, and they widen as they approach the river and bazaar. Now, as these nullahs form the natural water-courses to drain the station during the rainy season, it follows that the European troops are located upon the most rising ground, and, in point of fact, their barracks are situated on an open plain, elevated at least thirty feet above most other parts of the station. During the greater part of the year there is a total absence of vegetation, and the station and surrounding districts present an aspect of a painfully level, arid plain, knee-deep in sand; but, in the rainy season, the surface becomes covered with vegetation, grass and weeds, and, at all times, the trees growing in the officers' compounds, and in rear of the men's barracks, are agreeable features in the scenery.

2. *Climate.* — The Station of Deesa, occupying the position now described, is situated in longitude 72° 17′ east, and in latitude 24° 12′ north, and is about 400 feet above the sea level. Exposed to the influence of the south-west monsoon, the prevailing winds in the summer and autumn blow almost steadily, but with short intervals of oppressive calm, from the west and south-west, while, from its close proximity to the hills on the north, the atmosphere is refrigerated by winds from the north and north-east during the winter and spring months. The annual rainfall is inconsiderable. In the year 1858 it amounted only to 25 inches, and during the monsoon of the present year 1·12 inches were registered as having fallen in June, 10·12 in July, 7·62 in August, and 1·73 in September: total for the season, 20·59 inches. Owing to the extremely loose, sandy nature of the soil the rain-water is so rapidly absorbed that little of it reaches the nullahs, or natural water courses, except when the fall is heavy and long continued.

It appears, from the records of mortality, published in the Journal of the Transactions of the Medical and Physical Society of Bombay, that the climate of Deesa is almost as healthy as that of any other station in the Presidency; yet it is in many respects peculiar. There is, perhaps, no part of India in which, during the summer months, the range of temperature in the twenty-four hours is so high, nor would it be easy to point to any place in this or any other country in which the humidity of the atmosphere is so inconsiderable. But, in order to illustrate the most marked features of the climate, I beg to refer to the Appendix Table, in which is given an abstract of the meteorological observations for 1859, recorded in the Government Observatory which has been erected in the inclosure or compound of the regimental hospital. These observations were, I have reason to believe, faithfully recorded throughout, and the instruments by which they were made are suspended to a frame in the centre of a tiled shed or observatory, erected in the hospital compound, and well protected from ground radiation; and the Table referred to is accompanied by a diagram, showing the maximum and minimum of the self-registering thermometer, and the maximum and minimum humidity for each month of the year.

It remains only to state further, under this head, that the station was established as a frontier post of the Presidency about the year 1828, and that it is now held by a regiment of European Infantry, a troop of European Horse

Artillery, a squadron of Native Cavalry, a regiment of Native Infantry, and some Native Artillery.

3. *Barracks and Hospital, &c.*—The barracks occupied by the regiment consist of a double series of buildings, constructed on the plan so generally adopted in this country; the first of which afford accommodation to the single men of the regiment, and the second to the married men, the latter being distinguished under the name "Patcheries." The barracks, bungalows proper, are eleven in number, arranged in two parallel lines, thirty-four yards apart; the buildings in one line of which are exactly opposite to those of the other, a new barrack on the extreme right being thrown out in front of these two lines. Each of these bungalow buildings is covered by a double-tiled roof, through which open, from the interior, four ventilators (each 9 feet in length by 4 in breadth), and they are all similar in dimensions and interior arrangements. Each bungalow represents a single central room, 175 feet 9 inches long by 23 feet 3 inches wide, the height of which is 13 feet, and the verandahs are inclosed on each side at the ends of the building in such a manner as to form two small rooms. The accommodation thus obtained is supposed to be sufficient for seventy-five men, the calculation assuming that 700 or 800 cubic feet of air is an adequate provision for each soldier. Ventilation is in every respect well provided for, except at the ends of the barrack room, which are dark and gloomy, but here the end windows compensate, to some extent, for the inconvenience caused by closing in the verandah. Moreover, the aspect of the barracks is to the south-west, and thus secures for the ventilation the assistance of the prevailing winds.

It is only necessary to add, further, that all the barracks are built upon foundations little elevated above the ground, and that the floors, notwithstanding their occupation for years, are still nearly all formed of mud, plastered over with cow-dung.

From the description now given, it will be easily understood that the barracks must present a somewhat mean shed-like appearance; but, although the lowness of these buildings, the absence of raised foundations, the imperfect provision for ventilation at their ends, &c., represent very objectionable features in the accommodation, it is also to be observed that the bungalows are crowded into a very small space, most unnecessarily so, regard being given to the topographical resources of the station, and that it was

a great oversight not to have constructed them chequer-wise, thus :—

and at distances of 300 instead of 34 yards between these lines. The barracks occupied by the married men of the regiment, under the name of "patcheries," are five in number, and have been very recently constructed. These buildings are arranged in echelon, on the extreme left of the regimental lines, and at suitable distance from the barracks proper; and they stand upon a dry sandy plain, close to a small branch of the nullah, which defines the cantonment to the south. Each of these patcheries is 72 yards in length, surrounded by an open verandah, 8 feet 6 inches high, and 10 feet 3 inches wide, on the front and both ends, and by a closed verandah in rear; and they are all covered with a double-tiled roof, the height to the tie being about 14 feet. Further, each building is divided into fourteen compartments, for as many families, each of these compartments being again subdivided into two rooms; a large room in front, and a small room at the back, in the inclosed verandah. These two rooms communicate with each other by a large door, and the ventilation from side to side is thereby promoted, but no air can escape upwards, the roof being closed from one end of the building to the other. The shelter thus afforded is in the main very good; the patcheries are sufficiently far apart; the division of each into so many rooms secures privacy, prevents crowding, and favours a thorough and rapid, because independent, ventilation; indeed, one of the greatest objections to the barracks proper rests in the fact that their accommodation is represented by a single long dark room; a large volume of air, not being broken up into smaller masses, has a tendency to become stagnant, and crowding at different points in such a room is, at times, the necessary result of the soldiers' indiscretion, or want of discernment.

Ablution Rooms, Bath Houses.—A room or shed for ablution purposes is attached to the back verandah of each barrack, and ample means are provided for the observance of personal cleanliness, in benches, chatties, basins, &c.. while there is always available a cask of pure and excellent water for drinking, which is raised by bullocks from a well 80 feet deep. To the right of the line, and at some distance from the barracks, there are also two baths, each

4½ feet deep, 50 feet long, and 19 feet 6 inches wide, in which the men are enabled to bathe morning and evening, and the water for which is supplied by a well attached to the bath, and worked by bullocks.

Latrines and Urinals.—These had been very defective; but, after persistent representation by the Medical Officers from time to time in course of the year (1859), became at length placed in a sanitary state, in every respect satisfactory.

Cook-houses.—The cook-houses connected with the barracks are two in number—one for each wing—and occupy a position 16 yards in rear of the barracks. These buildings are of equal size: 19 yards in length by 8 in breadth; lofty, and roofed with double tiles, and afford ample facilities for cooking operations on a large scale. The head cook, in both establishments, is an intelligent Portuguese, and the soldier has no difficulty in getting his food dressed in any way he wishes, either for himself singly, or in mess with two or three companions. Indeed, between 10 and 1 o'clock daily, a great number of dishes may be seen in the process of cooking over the different cells on each side of the raised platform which runs along the centre of the kitchen, including stews, curries, puddings; and, if the troops are well fed, the fact must, to a great extent, be considered the result of the excellence and ingenuity of the cooks, for the meat is seldom of good quality, and the vegetables are occasionally deficient in variety, and of inferior quality. With respect to the patcheries, it is only necessary to state that there are three cook-houses attached to each, affording adequate accommodation in every respect, and arranged in line to the rear of the patcheries, at a distance of 15 yards.

Hospital.—The bungalows, or houses occupied by the officers of the regiment, are built in three parallel lines, immediately in rear of the barracks, and behind those, and within an inclosure covering a couple of acres of ground, stands the Regimental Hospital. This building consists of two wings, connected by a covered archway, each of which contains two large wards, and one small one. The large ward is 55 feet long and 25 feet wide, while the small wards are 25 feet square; the former are adapted for twelve patients, the latter for six patients. The cubic space thus available for each inmate (calculated on 12 feet of the altitude) being about 1,300 feet. The aspect of the building is south-west, the direction of the prevailing wind during the monsoon. The front face is closed by a verandah 147 feet long and 8 feet wide, from end to end, which is lighted by twelve large venetian-shaded windows for each wing. With this

verandah, the large wards communicate by four archways. A verandah of similar dimensions extends also along the whole length of the building in rear, into which the wards open. The outside of these verandahs is supported on pillars, the open spaces between which can be closed when necessary, by letting down the sun-shade, of wicker-work and matting, constructed on a strong wooden frame.

The ventilation of the Hospital is in all respects adequate; as, in addition to the doors and windows, four ventilators of ample dimensions are distributed along the roof.

From either end of the Hospital a line of buildings is projected to the rear, which buildings are used as store-houses, surgery, serjeants' quarters, cook-house, and dead-house, and between these is a covered passage which leads to the urinal and latrine.

The ground selected as the site of the Hospital is too close to the officers' quarters, the structure itself is too small to meet the requirements of an English regiment *at all seasons*, and the lateral buildings thrown out in rear, as representing, with the hospital, three sides of a square, are liable to much objection, and interfere considerably with the general ventilation.

Local and Special Causes, affecting the Health and Constitution of the Soldier.

The characteristic features of the climate of Deesa, during a great portion of the year, are a very elevated temperature, associated with a dry state of the atmosphere in the summer months, and an absence of much rain during the monsoon, while, in the winter and spring months, the weather is cool, agreeable, and invigorating; in the cold season, accordingly, little disease of any description is observed, and the mortality is trifling, but in the summer months fever, ephemeral, ardent or common continued, is a prevalent affection, and cases of apoplexy are not uncommon: and in the rainy season, July, August, September, and part of October, fever, of intermittent and remittent types, represents by far the most important disease, diarrhœa, as an associate of both, or an independent ailment, being by no means an uncommon affection. But few instances of dysentery, so fatal a disease in most parts of India, are presented in the station at any period of the year. It would appear from the Journal of Transactions of the Medical and Physical Society, Bombay, for the year 1851-2, that fever is not only the *disease* par-excellence of Deesa, but that the mortality, in proportion to the number of cases treated, is even greater

than at the Presidency, and double that of Poonah or Belgaum, that it amounts to 41·89 of the total mortality, and that "more deaths occur at the station from fever alone, than from pulmonic affections, diarrhœa, dysentery, cholera, and hepatitis, added together."

I may add that the experience of the regiment illustrates, thus far, similar results in connection with the climate, for fever was at once the most prevalent and fatal disease, and dysentery an affection of very rare occurrence.

The mortality and amount of disease, as well as the characters it assumes, must thus be referred in a great degree to the effect of season and climate; it is unnecessary, however, to dwell on the facts, since they are not preventible, though, if it be true that Mount Aboo, three marches distant, affords eligible ground, as a site for a barrack, several thousand feet above the sea level, in a cool climate, it may perhaps be allowable to inquire whether any urgent military necessity exists for keeping up the station at all. Meantime, we have to notice some other causes which may have contributed, though in a much less important degree, to render the soldier inefficient.

The regiment, as at present constituted, is made up of two-thirds by men who came out with it from England, and one-third by recruits who arrived in India in 1858 and 1859, October and November of the former year being the months during which the great majority, viz. 300, landed in the country. The effect of this constitution of the corps, as expressed in disease, has been marked, if not peculiar. The men of the former class, being acclimatized, suffered little from the graver forms of fever, but were frequently affected with the disease in the intermittent type, doubtless in many instances having contracted a disposition to it on a previous occasion: on the other hand, the greater age and previous habits of living, acted so obviously as predisposing causes of apoplexy, or *coup-de-soleil*, that all the deaths from this cause, five in number, were recorded among them; while, at the same time, these men monopolized also all the cases of delirium tremens, though happily few in number, and in no instance attended with a fatal issue. The soldiers of the latter class were especially liabel to fever, and often contracted the disease in a remittant type, so severe as to cause two-thirds of the total mortality to be assigned to fever in the regiment. And it is worthy of particular mention, as indicating the impropriety of sending young unformed lads to this country as recruits from England, that the average age of the subjects of these fatal cases was only 20 years and 6 months.

Diet.—Although the dietary of the British soldier in this country has frequently engaged the anxious attention of Government during the last few years, and has undergone much improvement by the introduction into it of a pound of fresh vegetables, as well as by the allowance of an increased quantity of sugar, yet I regret to have to state that the meat supplied to the troops at this station, from the beginning of April to the end of August, was generally of inferior quality and deficient in sustaining power, owing to the want of grass for cattle, and that the supply of vegetables was, for a great part of the same period, to a great extent limited to onions and pumpkins, the latter of which, being considered by the men of little use as an article of food, was sometimes looked upon with aversion, and often left uneaten, either from distaste, or from fear of its producing diarrhœa.

To the defects in the rations here noticed I attributed in part the feeble, exsanguined appearance presented by a large proportion of the men during the last few months, as also, in a certain degree, the low asthenic symptoms observed in some cases of fever, and I thought it proper to recommend that four ounces of dholl, one of the pulses rich in nitrogen, should be issued twice a-week to the European troops at the station as a substitute for the ration of rice. I may add, that this was the only suggestion available under the circumstances, for it was found impossible to supply meat of a better description, and all the exertion of the Brigadier commanding failed to procure other kinds of vegetables, as potatoes, turnips, carrots, sweet potatoes, &c. Happily, it was, however, immediately acted upon, and since the 1st of September the soldier has enjoyed, and used with advantage, as pea-soup, currie, puddings, &c., this valuable and too much neglected article of food, which has at once the rare merit of compensating for the nitrogen deficient in the meat, and adding variety to the vegetable element of the diet.

Barrack Accommodation.—I have already adverted to the imperfect hygienic conditions, resulting from the construction of the barracks in parallel lines on so small a space of ground, and the inconvenience and crowding caused by the buildings in rear of the barracks, as also the close proximity of the officers' compounds; and it is painful now to have to observe that these defects are not only of a serious nature in their sanitary relations, but that they might have been easily avoided, in the original plan or disposition of the lines, by throwing back the site of the hospital to a position on the plain, 200 yards more in rear, and marking off the

space, covered by the officers' compounds, at a distance 100 yards further from the buildings referred to. With respect to the barracks, it appears, as before stated, that they are intended to accommodate about 800 men; but I find, on estimating the cubic space, that, in order to assign each soldier 700 cubic feet of air, it becomes necessary to admit the whole height of the barrack-wall as an element into the calculation. Now, I believe that 1,000 feet, exclusive of the space inclosed by verandahs, should represent the accommodation of the soldier in this country, and this without taking into account more than 12 feet of altitude of the barracks; and I think it important to remark, that it would be more in accordance with the practice of civil or private life, and with the requirements of sanitary science, were it found possible to construct barracks of a size which would not afford accommodation, under one roof, to more than twenty-five, or at most fifty men.

But apart from the defects of accommodation, inseparable from the arrangement or construction of the barracks, and the assigned allotment of cubic space in them, now referred to, I have to state that some amount of overcrowding was necessarily incurred in the period embraced between the middle of May and the beginning of August, from the fact that the strength of the regiment, exclusive of men in hospital, married men, and men on duty, amounted to 900. In the early part of the year, several of the companies were detached on field-service, and the available space became ample in every respect; and after the month of August a new patcherie was handed over to one of the companies, while still more recently the pressure on the accommodation was relieved by a reduction of strength, consequent on volunteering, casualties, and the discharge of time-expired men. During the period now mentioned, however, the inconvenience of overcrowding was experienced by the regiment, and yet it was not possible to detach men to Aboo, as there were no barracks to receive them at that place; nor did the heat of the weather at that season of the year permit the suggestion of putting the soldier under canvas; it remained, therefore, only to propose that three tents should be pitched in rear of each barrack for occupation at night; and, if I have no very ill effects to record as results of the limited accommodation at this time, the gratifying circumstance may perhaps be referred, in part, to the *fact* that the suggestion was adopted, and the barracks thus relieved from overcrowding at night, when cases of apoplexy and of cerebral congestion are especially liable to occur.

It is only necessary to mention, further, that the number of men in hospital often exceeded 100, and that some overcrowding was the unavoidable consequence; for, as the hospital accommodation is designed for 60 patients only, it became necessary to occupy the verandahs as well as the wards; whether any injury was caused, by this pressure, cannot be either positively asserted or denied; but the fact itself gave me much anxiety. It is possible that the too close aggregation of the sick thus produced may have impressed a grave type upon some cases of disease, more particularly of fever; if so, it may be presumed that this untoward result must have been rendered much more unfrequent by the means adopted to prevent it, for care was taken not only that the space available was evenly distributed, but tents were pitched in the hospital compound, in which the numbers in excess of the hospital accommodation were provided with shelter at night.

In every military station of this country, it may be assumed that there is a tendency, during the rainy season, to the growth of luxuriant vegetation, whether as grass, weeds, or hedges, &c., and there can be no doubt that the subsequent drying up, or rather rotting of such vegetation, is often a prolific source of malaria, or other noxious exhalations, during the dry weather which prevails in the latter half of September and the months of October and November. Hitherto there has been a considerable exemption from fever of an intermittent type, and the regiment at this station and the troops have enjoyed great immunity from dysentery, while instances of remittant fever have not been of common occurrence, and were confined for the most part to the recruits as a class. It cannot therefore be said that disease of any kind has indicated any close connection with the sanitary state of the regimental lines. Still I may mention that, having considered it a matter of paramount importance to restrict within the smallest possible limits the action of all local influences thus likely to be developed to the prejudice of the regiment by this process of growth and decomposition, I thought it necessary to bring the state of the camp, in relation to it, under the notice of the officer commanding the station, with a view to have such growths cleared away and kept in check, a course which was promptly adopted.

The want of exercise, and the monotony of a soldier's life in times of peace, have long been familiar to the Medical Officer as causes of disease, and the fact has been put forward with due emphasis and, it may be added, with

proportionate effect, in the Report of the Sanitary Commission. It is in India, however, that the baleful effects of an indolent, inactive mode of living are most conspicuously observed, indeed, *cæteris paribus*, it would not be difficult to prove, that the measure of health, which an Englishman enjoys in this country, is in direct relation to the amount of active exertion which he has to undergo. Indigo planters, Officers of the Civil Service, men in the pursuit of business, these are the classes among whom the healthy portion of the community in India must be sought; the soldier, on the other hand, has no object of sufficient interest to compel him to take much exercise, and few resources or amusements to tempt him out of doors; he yields to the seductions of an enervating, exhausting climate, acquires sedentary and too often dissipated habits, deteriorates in physical and intellectual endowments, from want of employment, both bodily and mental, contracts disease readily, possesses neither the muscular nor nervous energy to carry him through it, nor that vigour and perfection of the functions which might enable him to eliminate it, or throw it off. It is no uncommon thing to see men who had been drooping, weak, and anæmic in barracks, when ordered on field service, or the line of march, rapidly acquire renewed strength, energy, and spirits; men now voracious in appetite, who were previously unable to make use of their daily rations. Nor are the instances by any means unfrequent, in which patients admitted into hospital, and confined to their beds, for the treatment of various local affections, contract disease of the liver, dyspepsia, &c., from the absence of exercise alone, and in so aggravated a form as to render their removal to England, for change of climate, unavoidable.

In the presence of facts such as these, we must regard the soldier's life in this country as, in its very nature, a pregnant source of disease, but I have to add, with pleasure, that the fact has been fully appreciated by the officers of the regiment. Skittle grounds have been constructed for the use of the men, and quoits and draft boards supplied to each company, at the expense of the canteen fund; and the officers have entered upon a voluntary monthly subscription to encourage amusements amongst the soldiers, and to induce them to leave their barracks in pursuit of health and recreation.

Meteorological Observations recorded in the Government Observatory at Deesa, for each Month of the Year ending 31st December, 1858.

Months.	Barometer. 9½ A.M. Maximum.	Barometer. 9½ A.M. Mean.	Barometer. 9½ A.M. Minimum.	Barometer. 3½ P.M. Maximum.	Barometer. 3½ P.M. Mean.	Barometer. 3½ P.M. Minimum.	Thermometer, Dry Bulb. 9½ A.M. Maximum.	Thermometer, Dry Bulb. 9½ A.M. Mean.	Thermometer, Dry Bulb. 9½ A.M. Minimum.	Thermometer, Dry Bulb. 3½ P.M. Maximum.	Thermometer, Dry Bulb. 3½ P.M. Mean.	Thermometer, Dry Bulb. 3½ P.M. Minimum.	Thermometer, Wet Bulb. 9½ A.M. Maximum.	Thermometer, Wet Bulb. 9½ A.M. Mean.	Thermometer, Wet Bulb. 9½ A.M. Minimum.	Thermometer, Wet Bulb. 3½ P.M. Maximum.	Thermometer, Wet Bulb. 3½ P.M. Mean.	Thermometer, Wet Bulb. 3½ P.M. Minimum.	Thermometer, Greatest Heat in Sun's rays. Maximum.	Thermometer, Greatest Heat in Sun's rays. Mean.	Thermometer, Greatest Heat in Sun's rays. Minimum.	Self-Registering Thermometer. Dry Bulb. Maximum in Air. Greatest maximum of month.	Dry Bulb. Maximum in Air. Mean maximum of month.	Dry Bulb. Maximum in Air. Least maximum of month.	Dry Bulb. Minimum in Air. Greatest minimum of month.	Dry Bulb. Minimum in Air. Mean minimum of month.	Dry Bulb. Minimum in Air. Least minimum of month.	Wet Bulb. Maximum Wet. Greatest maximum of month.	Wet Bulb. Maximum Wet. Mean maximum of month.	Wet Bulb. Maximum Wet. Least maximum of month.	Wet Bulb. Minimum Wet. Greatest minimum of month.	Wet Bulb. Minimum Wet. Mean minimum of month.	Wet Bulb. Minimum Wet. Least minimum of month.	Humidity. 9½ A.M. Maximum.	Humidity. 9½ A.M. Mean.	Humidity. 9½ A.M. Minimum.	Humidity. 3½ P.M. Maximum.	Humidity. 3½ P.M. Mean.	Humidity. 3½ P.M. Minimum.	Temperature of Dew Point. 9½ A.M. Maximum.	Temperature of Dew Point. 9½ A.M. Mean.	Temperature of Dew Point. 9½ A.M. Minimum.	Temperature of Dew Point. 3½ P.M. Maximum.	Temperature of Dew Point. 3½ P.M. Mean.	Temperature of Dew Point. 3½ P.M. Minimum.	Rain. Inches. During the month.	Rain. Maximum in 24 hours.
January ..	..	..	..	..	..	..	78·40	69·20	58·10	85·80	77·90	68·60	66·50	57·40	48·50	49·40	60·50	52·20	120·30	108·60	96·20	86·30	79·20	69·20	64·0	47·40	38·30	70·30	62·50	54·30	60·00	43·40	35·00	0·775	0·54	0·407	0·536	0·426	0·338	60·50	50·50	34·80	62·60	51·80	42·20	0·20	0·20
February..	..	..	..	..	..	..	82·20	75·00	65·11	90 20	83·10	69·40	97·50	60·40	53·50	69·10	63·40	51·70	127·00	112·80	90·60	90·5	84·2	70·5	60·0	51·7	38·4	70 00	65·40	53·0	53·0	45·90	33·80	0·706	0·490	0·362	0·468	0·383	0·278	63·10	53·00	40·20	59·60	53·50	41·20	..	..
March ..	..	..	..	..	..	..	93·40	85·40	75 80	101·00	93·30	84·60	75·20	70·20	64·50	75·20	70·20	64·50	132·50	125·00	110·60	102·40	95·00	86·20	69·90	62·40	56·70	78·30	73·20	68·00	65·00	55·10	48·00	0·662	0·440	0·286	0·488	0·334	0·206	70·40	59·20	47·90	64·20	58·70	53·00	..	..
April ..	..	..	..	..	..	..	101·10	94·00	85·40	108·00	101·4	94·60	79·40	73·10	64·70	82·30	75·60	66·40	139·60	132·60	124·20	110·00	103·70	96·00	77·00	70·00	59·70	84·20	78·60	72·40	72·60	63·10	52·00	0·619	0·383	0·254	0·392	0·306	0·247	72·30	62·70	50·60	71·60	62·50	51·90	..	..
May.. ..	..	..	..	..	..	..	99·10	94 50	90·20	108·80	104·60	99·30	81·90	78·10	75·20	81·90	79·50	76·00	140·07	132 09	123·07	111·00	107·00	102·00	82·00	78·20	72·80	84·20	81·90	78·80	76·20	73·20	68·50	0·566	0·466	0·321	0·396	0·367	0·357	74·30	69·90	63·30	71·10	69·00	67·00	..	..
June.. ..	..	..	..	..	..	..	95·30	98·60	81·80	105·00	98·60	87·40	79·40	78·20	76·60	86·90	80·30	78·00	131·00	121·50	101·30	107·30	101·30	89·00	81·20	78·40	73·70	84·50	82·20	79·40	78·0	73·60	67·10	0·792	0·564	0 429	0·718	0·44	0·324	76·60	72·00	68·50	77·60	71·20	66 00	2·13	1·35
July.. ..	..	..	..	..	..	..	91·20	82·80	76·40	101·00	88·40	88·10	82·00	78·20	74·50	85·10	80·90	78·00	128·70	116·30	108·00	102·00	89·80	82·00	83·40	77 50	65·00	86·50	82·10	79·00	79·00	76·50	74·40	0·959	0·811	0·543	0·914	0·712	0·479	79·80	75·90	73·20	80·70	77·10	72·50	15·76	3·58
August ..	..	..	..	..	..	..	84·60	81·20	77 ·00	90·60	86·50	79·20	78·20	76·30	73 00	82·90	79·20	76·20	118·20	109·40	98·00	91·60	87·60	83·80	77·50	74·50	71·90	83·80	80·30	77·60	77·20	73·90	71·00	0·927	0·792	0·642	0·884	0 711	0 609	76·20	73·80	68·40	80·10	15·60	12 20	0·27	1·22
September.	..	..	..	..	..	..	94·40	82·70	76 60	100·00	85·80	82·00	80·10	76·70	74·30	82·30	79·20	76·10	124·80	113·60	102·00	101·20	90·40	83·00	78·90	74·10	71·00	83·90	80·40	78·2	71·4	73·1	69·9	0·946	0·754	0·511	0·812	0·633	0·417	77·80	73·60	69·80	77·50	74·20	70·50	5·99	3·18
October ..	29·942	29·824	29·736	29·854	29·747	29·677	89·40	84·00	78·40	95·30	92·40	87·00	77·20	71·70	65·40	78·60	74·10	68·80	128·90	120·30	109·50	96·2	93·5	88·0	73·0	62·0	53·0	80·0	76·1	71·8	72·5	60·30	51·30	0·764	0·558	0·420	0·664	0·425	0·322	73·80	65·50	57·20	74·10	64·90	57·10	..	..
November .	30·16	29·946	·868	29·920	29·853	29·804	86·80	79·90	74·00	91·20	86·60	82·20	69·20	63·80	57·80	71·10	66·40	62·30	118·80	110·70	103·80	93·30	88·40	83·30	56·20	51·80	46·20	72·30	68·30	63·80	54·50	49·50	43·00	0·515	0·455	0·400	0·455	0 375	0·327	61·60	55·80	48·60	62·00	56·30	51·70	..	..
December .	30·50	29·985	·842	29·984	29·829	·752	78 90	72·00	63·40	85·20	80·50	72·20	64·50	59·10	49·70	68·40	63·60	55·80	109·00	103·30	95·10	86·00	81·80	73·50	61·00	50·30	44·0	71·20	65·20	56·80	59·80	48·00	40·00	0·662	0·525	0·385	0·521	0·439	0·378	59·10	52·30	40·00	61·30	55·20	46 70	..	..

DIRECTION OF WIND.

	N.	NE.	E.	SE.	S.	SW.	W.	NW.
	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.
January	..	4	1	5	..	..	3	11
February	4	6	1	3	..	..	5	9
March	6	4	3	..	2	6	5	5
April	9	1	1	1	5	4	6	3
May	..	..	..	..	8	13	10	..
June	..	..	..	..	3	17	10	..
July	..	..	..	1	3	16	11	..
August	..	..	..	..	2	29	..	..
September	3	..	2	6	5	2	7	5
October	3	3	8	2	1	..	4	10
November	..	4	7	6	1	2	2	8
December	15	7	2	2	1	..	..	4

W. HANBURY, *Surgeon, H. M.'s 33rd Regiment.*

Topographical and Descriptive Account of Mount Aboo, the Station, Barracks and Hospital.

By J. OGILVY, Esq., M.D., *Assistant-Surgeon, 33rd Regiment.*

1. *Geographical.*—Mount Aboo, which may be called the Sanitarium of Guzerat and Rajpootana, is a large isolated mountain in the territory of the Rao of Serohī, in the province of Rajpootana.

It is situated in latitude 24° 40′ N., and in longitude 72° 56′ E.

It lies a few miles to the S.W. of the Aravelli Range, from which it appears to be distinct.

It is forty-five miles distant, in a N.E. direction, from the military cantonment of Deesa.

It is distant from—

Calcutta ..	..	about	1,000 miles.
Bombay ..	..	„	400 „
Agra ..	..	„	400 „
Lahore ..	..	„	550 „
Hydrabad	(Scinde)	„	300 „
Ahmedabad	..	„	120 „

2. *Historical.*—Aboo is a place of great antiquity and sanctity, but, before the year 1806, had no place in our map of India.

The famous temples of Aboo have been the chief source of its historical fame. Temples are said to have existed here in remote ages, dedicated to Siva and Vishnu. On the traditional site of these places of worship now stand the far-famed temples of Dilwara. They belong to a sect of Hindoo Deists called Jains, and were built 1,000 years ago, at the expense of Bimul Sah, a merchant of the sect, who dedicated them to the gods Richabdes and Nemminath.

They are built almost entirely of marble, and are said to have cost 19,000,000*l.* sterling.

Their internal decorations are of the most elaborate, varied, and gorgeous description.

They still attract the devout from many parts of India.

An equestrian statue of Bimul Sah attests the gratitude of the Jains to the munificent founder.

Colonel Tod, Governor-General's Agent for the Western Provinces, was the first European who visited the hill of

Aboo. He reached the highest summit in 1822, with considerable difficulty.

The results of his observations are given in his *Travels in Western India* (page 73).

Between 1824 and 1832 the only European who visited Aboo regularly was the Political Superintendent of Serohi, who built a small house in the vicinity of what is now the station, and usually spent the summer months in the comparatively cool atmosphere of the hill.

About the year 1836 the Joudhpoor Legion was formed, and, by the year 1842, most of the officers of the Legion had taken advantage of the nearness of Aboo, and built houses for themselves there.

About 1840 a few invalid soldiers, from Deesa, were sent up to Aboo, for the sake of their health, and were encamped there for the hot months, returning to the plains before the rains set in.

In 1843, Major Anderson, the Political Superintendent, procured from the Serohi Rao the present barrack valley where the troops are stationed, and handed it over to the military authorities.

The two hospital buildings (now pulled down) were first erected, and, subsequently, two barrack buildings, all of perishable construction, but in some respects suitable for occupation during the fair weather months.

These erections appear to have been put up on the recommendation of Colonel Sutherland, in 1847, who placed on record his opinion of the adaptability of the hill to the purposes of a sanitarium throughout the *whole* year.

Since that time, troops have been kept at Aboo almost without intermission, during all the seasons of the year, and with the best results.

General Description.—Mount Aboo, at its base, is about 13 miles long, 11 miles broad, and 50 in circumference.

It rises rather abruptly from the wild sandy plain around, nd the ascent is, consequently, long, winding and steep.

The top of the hill is extensive, and very irregular, consisting of peaks, ridges, valleys, sloping plateaus, and wide basins.

The highest peak is called Goru Sicker, and is 5,700 feet above the level of the sea.

The average height of the present station is about 4,000 feet above the sea.

There are other peaks of lower elevation, one of the principal of which is called Achilghur. On it a fine marble temple, of the same name, is picturesquely placed.

The general effect of the hill landscape is pleasing, especially to a visitor from the far stretching and parched up plains below. The bold and often grotesquely shaped rocks blend agreeably with the vigorous shrubs and herbage.

Clear streams of water flow along the low grounds, and give freshness and a picturesque appearance to them.

In the rains, the mountain streamlets, meeting in the deeper glens, find exit through narrow gorges, and rush down their steep, rocky channels, in fine cascades, into the plains below.

Aboo was formerly more wooded than it is now. There are still, however, some very fine trees on different parts of the hill, and its sides are covered with a thick, jungly vegetation.

There are several lakes or collections of water on the hill, the chief of which, called the Nukkee Talao, is on the west side, lying romantically between the western ridges of Aboo and the station. It must originally have been a small natural tank, probably formed by volcanic agency, but, by the erection of a bund or wall, and other artificial means, it has assumed its present appearance and dimensions.

It is now about 1,000 yards long, and about half as broad. Its greatest depth is probably under 40 feet. It is a rather stagnant piece of water, and the side of it which is adjacent to the station is generally shallow and marshy. It is an unfortunate circumstance that the prevailing wind should be from the south-west, as it thus generally passes over the lake before reaching the station. Its level varies according to the season of the year. Between the end of the hot weather, and the termination of the rains, there is a rise of from 5 to 7 feet.

Skirting the north end of it, and close to its shore, is the main road, which runs in an easterly direction to the barracks and station, and in a westerly direction to what are called the Aboo Gates.

At this latter point, which is merely an opening between two high pieces of rock, commences the winding downward road, the main communication with the plains below.

Only the station and its vicinity are furnished with roads, which are merely broad *paths*, repaired, for the most part, at the expense of the residents. They wind through the station, and branch off in different directions, affording opportunities for healthful exercise on foot or horseback, and trips to interesting points in the surrounding neighbourhood.

Animal Products, &c.—At some seasons feathered game

is to be found in the marshy hollows and lakes, and, all through the year, the sambur deer may be tracked within a short distance of the station.

There are few villages on the hill from which sheep or bullocks are not occasionally carried off by a tiger or panther, and the peculiar roar of the bear, and the bark of the hyæna, may occasionally be heard on the jungly hill sides of Aboo.

Snakes of different kinds are common enough, and, in the wet weather, frogs swarm.

The lake contains several kinds of fish, some of which are tolerably good for eating.

The fresh-water crab abounds in some of the larger streams.

Sheep and poultry are reared by the people to a limited extent, and with varying success.

The grass is not well fitted for the fattening of sheep, and, consequently, those seen on the hill have generally been brought up from the plains, and stall-fed on gram, for the butcher.

A sturdy breed of oxen is met with on Aboo. They are kept for agricultural purposes and supplying milk, and are never eaten or allowed to be killed on the hill through Hindoo prejudice.

Geological Formations.—Aboo is almost entirely composed of granite. Distinct veins of quartz are common, and trap, greenstone, and other rocks are occasionally met with. Fine specimens of rock crystal are sometimes picked up. The amygdaloidal texture may be observed in some of the rocks. All the various stages of decay of the granitic rocks may be traced.

About five miles, in a southerly direction from Gurusicker, there is a marble quarry, at the foot of the hill, from which the marble for the famous temples was procured. It was brought up the hill by an ancient, and still partially existing road, on its south-eastern aspect.

This road may again, possibly, be made useful, in the event of the station or camp of Aboo being removed to the plateau of Coria, as will be afterwards noticed.

Villages.—There are twelve villages on Aboo, exclusive of the collections of houses which have sprung up in the vicinity of the station. Two of these are now deserted.

Inhabitants.—The aborigines of the hill appear to have been Bheels. They appear to have been overcome some 1,500 years ago by marauding Rajpoots from the plains, who seized their arable land, and intermarried with the

subjugated owners. A mixed race has thus sprung up, disowned by the Rajpoot caste, and living apart from the few pure Bheels who still are to be found on the hill. This mixed race is now in possession of almost all the land under cultivation. The Hindoo population probably exceeds 1,000, exclusive of the varying retinues of political agents and residents.

Religions and Castes.—The castes are chiefly Jains, Rajpoots, Coolies, Bheels, and Loke.

The Mussulmen now found on Aboo are followers of the Rajpootana agency, pensioners, &c.

Cultivation.—Cultivation is naturally limited, and confined generally to the low strips of valley land in the vicinity of the villages, and where irrigation is possible and easy.

Vegetable Productions.—The only crops are wheat and barley in the cold weather, and, in the rains, Indian corn, moong, and a few species of cucumbers and gourds.

Some enterprising gardeners also grow *potatoes* and European vegetables, which thrive well at this elevation.

The *tea* plant, some years ago, was for a time cultivated with success, but, unfortunately, there is now no trace of this promising experiment.

Mangoes are plentiful, but of an inferior quality.

Plantains thrive, but the fruit does not come to perfection.

The *karoonda* plant (the cavissa karoonda) grows wild, and is plentiful and vigorous. An excellent and wholesome jelly is made from the berries.

The *jessamine* is very abundant.

The *oleander*, the *willow*, and the *dog-rose* are also indigenous.

The nectarine and peach are cultivated in the gardens, but the fruit of the latter only comes to perfection.

The sacred Champa tree grows at Dilwara to an extraordinary size, and the delightful fragrance and umbrageous beauty of this magnificent tree are very striking. Most English flowers are cultivated in the gardens with success, and some of the older residents have surrounded their bungalows with gardens of great beauty.

Soil.—The soil is porous, and generally easily drained. It is composed chiefly of the different kinds of clay and gravel, the products of granitic decomposition.

A sort of strong, high grass springs up in tufts most luxuriantly wherever there is dampness or moisture, and its presence is a pretty sure sign of the necessity of draining

the ground on which it grows. It retains moisture amongst its roots and stalks, and is a cause, as well as a result, of the dampness of particular spots of ground. It grows vigorously near the barracks, and all around the barrack valley. In walking through it the air has a sensibly raw and chilling feel, and the change to a rocky part of the path is striking.

In some parts of the hill two crops are raised yearly.

Wild flowers are abundant, and honey is a favourite food among the villagers. The bees'-wax is also a profitable product.

The Seasons.—The seasons do not much differ in time from those usually experienced in the plains.

The hot weather, if indeed it can be called hot, commences about the middle of April, and terminates with the rains, which are variable in the time of their accession, but usually commence with thunderstorms about the middle of June.

The rains cease as they begin, with thunderstorms, about the middle of September, after which, for a few weeks, an occasional shower falls.

A short interval of warm weather during October and part of November, follows the monsoon ; and, at the end of November, the cold weather has set in, and continues from this time until April, when the weather gradually becomes warmer.

The highest temperature ever known in Aboo in the shade is 98° Fahrenheit ; and the lowest to which it has fallen is 28° Fahrenheit. This gives an *extreme* thermometrical range of 70°.

The usual extreme of summer heat, however, very seldom exceeds 90° ; and the cold of the winter months seldom falls below 40° Fahrenheit. This gives the ordinary range of the thermometer at about 50°.

The following comparison holds with Deesa :—

	Usual extreme of Summer Heat in shade.	Usual extreme of Winter Cold in shade.	Average Daily Temperature through the year in shade.	Maximum Temperature in Sun's rays.	Usual range of Thermometer.
Deesa	110°	40°	74·1	140·7	70°
Aboo	90°	40°	69·9	112·9	50°

The thermometric figures are better shown in the

Meteorological Table in Appendix, than they can be described here.

At no season can the climate of Aboo be said to be disagreeable.

During the warm months of April, May, and June, the weather is most delightful; the mornings and evenings cool and invigorating, the temperature in the middle of the day in the shade, always bearable, and the nights cool, and well-fitted for refreshing sleep.

Kus-kus tatties are unknown; and punkahs are only used by the more luxurious. The temperature of the warm months averages 77° Fahrenheit. The Deesa average summer heat is 90° Fahrenheit.

The difference between the power of the direct rays of the sun at each place, is striking (see Table No. I, page).

The soldiers in the warm months are generally very healthy, and have plenty of out-door exercise and amusement.

At hill stations, as a general rule, the monsoon season is a very disagreeable one, and residents often retreat to the plains before it sets in.

It is also unusual to retain soldiers on the hills during the wet weather. It is therefore of much interest and value to know the results at Aboo, where soldiers are kept during the whole monsoon. It is certainly not an agreeable season to them, because, as will be afterwards fully entered into, their barracks here are badly situated, and hitherto have been unfitted, by their temporary construction, for a monsoon residence. But notwithstanding these drawbacks, the men are very healthy, generally, during this foggy, drizzling weather.

In the table land of the Deccan, the monsoon season is mild, genial, and healthy, and there is little inducement to send invalids or others to the hill stations. But in Guzerat the monsoon is a close, oppressive, and unhealthy season. The temperature at Deesa, for instance, averages 89° in the rains; whereas, in the same season at Aboo, the average is about 70°. The climate of the Mount during this time is soft and pleasant, but there are the drawbacks, of course, of fog, drizzle, and wet. It bears a very favorable comparison with the reeking and unhealthy rain-time in Deesa. In the monsoon of 1859, the Hospital of Her Majesty's 33rd at the latter station was filled, and many deaths took place. The soldiers at Aboo, half of whom were invalids or weakly men, were at this time wonderfully healthy, and no death occurred.

There is in the monsoon season at Aboo considerable

humidity in the air; and exposed furniture and other articles become rapidly covered with mould. From 55 to 60 inches of rain is the usual annual fall at Aboo. The average for the *last* 5 *years*, however, has been 69·29 inches, which is unusually high. The usual annual fall contrasts favorably with other hill stations, &c., as compared in the following Table:—

Station.	Average Annual Fall of Rain in inches.
At Aboo	55
„ Mahabuleshwar	254·0
„ Poorundhur	72·2

There are some days of the monsoon very foggy, and to an extent not often met with in the plains. There is also now and then a penetrating driving mist, which it requires a particular construction of building to resist and exclude. This foggy, drizzling weather, however, is relieved by occasional comparatively fine days, and never lasts longer than four or five days at a time.

The Autumnal or 2nd Hot Season.—After the rains, the clouds gradually disappear, and the now diminishing, but still powerful sun heat, reappears for a time. This season lasts from the cessation of the rains in the beginning of September to the middle of November, when the cold sets in.

This is a pleasant time at Aboo, and visitors run up to escape the warmth and unhealthy exhalations of an October in the plains.

Unhealthy Season at Aboo, and the cause.—But strange to say, the above among the soldiers is the unhealthy time of the year. The natives, who live from choice on the low ground, and the soldiers who, from necessity, live in the barrack *valley*, suffer from fever and ague, while fever among the residents and visitors is a thing unknown.

A good deal of dampness prevails in the hollows at this time, and the misty morning clouds may be seen floating over the low grounds and valleys up to a late hour. The long marshy grass, before described, is generally at this season bedewed with moisture, which is retained amongst its roots and tufts.

It is conceived the military hospital statistics of this season would be very much altered by a change in the

position of the barracks to high and healthy ground, of which there is plenty.

Cold Season.—The cold weather is extremely healthy and bracing. The temperature averages about 60° Fahrenheit; and on one occasion in 1855, fell as low as 28 Fahrenheit (Table No. II.) Hoar frost often covers the ground in the morning before sunrise; and some years ago ice used to be made and stored, the expense and trouble, however, attending its collection were so great, that it is not now attempted.

The admissions into Hospital reach their minimum in this season.

Sites for a Station and Sanitarium.—In the selection of a European station at Aboo, the present site was naturally fixed on, on account of its pleasing position on the banks of the lake, the adaptability of the undulating ground to the purposes of building and gardens, and the convenient nearness to the Deesa road, and to the chief objects of interest on the hill. An explorer would certainly fix on it as one of two desirable positions to be found on Aboo, for the purposes of a station.

The other tract of ground, which presents advantages in some points over the present, is at some distance from the station.

It is a large piece of table-land, called *Oovia*, and it is situated on the western aspect and at the foot of the high peak of Gurusicker. It lies nearly east from the present station, and is about five miles distant. It is also 500 feet higher, and would afford room for the hutting and exercising of 3,000 or 4,000 men. Undulating bungalow and garden ground is plentiful. A certain amount of drainage would be necessary on its south side. The ascent to it at present is steep and difficult, but a good road could easily be made. It might also be approached by a ghāt-road on the southern slope, a road which was originally made many hundred years ago, for the purpose of transporting the marble from the quarry at the foot of the hill to the temples: this road has fallen into disrepair.

In a few years, when it comes to be seen that the hill stations are the natural and proper residence (when practicable) of Europeans in this country, it may well be imagined that motives both of humanity and of financial economy may induce the Government to form an extensive depôt or depôt brigade of troops, and especially of young or recently arrived soldiers, at Aboo, for the supply of the surrounding stations. In that case the plateau or table land

of Oovia may be used with advantage, and the position more minutely studied.

With such a prospect, Aboo would be less isolated, and its invigorating climate made easily available, if railway communications were laid down between it and the different surrounding stations. There are no great obstacles to this in the nature of the surrounding country.

The troops concentrated at Aboo could thus be made available for immediate removal to the plains in case of sudden need, and a considerable amount of life and expense saved.

The expense attending the invaliding and discharging of broken down soldiers from Guzerat and Rajpootana, now so great, would, it is conceived, be most materially lessened.

The present road from Deesa to Aboo is little more than a cart track over the sand, always heavy, and in the rains very difficult of passage. It is a dreary journey, but in dry weather, with good carriage, may be hurried over in a night. It is a military march of four or five days. At the Indian rate of railway speed, it would be a trip by rail of two hours and a half.

About two miles from the foot of the hill, is the little village of Anadra, where troops and visitors halt, and procure coolie carriage and chairs for the ascent.

The road from the foot of the hill upwards is narrow, steep, and winding.

A good carriage road might be made up the hill without much difficulty.

The top of the hill is reached at what is called the "Aboo Gates," which are merely two prominent perpendicular rocks, with a passage between them. Two hundred yards after passing this point, the lake comes in view, and immediately afterwards the station.

The Station.—The station of Mount Aboo is situated in the lower basin formed by the northern and western ridges of the hill on two sides, and the smaller peaks and detached ridges on the south and east.

It is about 4,000 feet above the sea, and the ridges around rise 400 or 500 feet higher, one or two to nearly 1,000 feet.

The basin may be said to be three miles and a-half long, and two miles broad; irregular in outline, and communicating by several gorges with the plains below.

There is, perhaps, a difference of 150 feet in the elevation of the highest and lowest bungalow in the station.

The bungalows are generally built on rising ground. All the best sites near the lake are crowned with houses.

The depressions and valleys are usually avoided, as in some seasons they are damp, and the mists linger over them. The only exception to this preference for high ground is in the case of the barracks. There are about twenty bungalows belonging to, or rented by visitors.

A small, airy, well-built (pucka) church stands about the centre of the station, and, a few yards behind it, the "Aboo Lawrence School," occupies a gently rising ground.

The Deesa chaplain makes a visit about once a month, when the roads are practicable.

There is a large bazaar, near the church, on low ground, which presents no features of interest; and there is a smaller one attached to the Sanatorium, and within the military limits.

Supplies.—Almost all supplies come from below, on the heads of coolies and the backs of donkeys, and are retailed in the bazaars at advanced prices.

There are generally from 250 to 300 Europeans on the hill, including soldiers and school children.

There is a prettily situated cemetery, within a mile of the church. The road that winds past it is continued in a westerly direction about another mile, and ends in a favorite lounge, called "Sunset Point," from which the Deesa plain is well seen. The highest house in the place is called the "Vakeel's house." It is picturesquely perched on the pinnacle of a high conical rock on the west side of the lake, and looks down on the station over the intervening water.

Schools.—There is no native school at Aboo. The late Sir Henry Lawrence, in the spirit of true philanthropy for which he was so eminently distinguished, conceived the idea of establishing a school at Aboo, for the reception and education of European children; chiefly those of soldiers. This institution has already proved an incalculable blessing to many children, who would otherwise have been exposed to the deadly influence of a residence in the plains. It is supported chiefly by subscription, the founder having set a noble example of liberality. The number of children now exceeds sixty, and their healthy appearance is the subject of remark by all visitors.

The boys are provided with situations in the Civil, Staff, and subordinate Medical Departments, and the girls are trained to useful avocations for wives and members of society.

General Remarks on Hill Stations.—From experiment and

observation, it appears that considerable judgment is necessary in adapting and timing the benefits of hill sanitaria to European soldiers and invalids.

It cannot be truly affirmed that the effect of the descent from a hill station into the plains is similar to an arrival in India from England.

There is a certain acclimatization secured by a hill residence on first arrival, which becomes a notable advantage.

Certainly, as far as experience yet extends, the effect of removing an old, service-worn regiment to the hills is by no means desirable, as visceral congestions are almost sure to occur in a proportion of the men. It is in the case of freshly-arrived drafts and young recruits that benefit is to be looked for; and a careful selection from amongst sickly men and convalescents will always be benefited. This is found at Aboo, and stations similarly situated.

Suffice it to remark, generally, on hill stations, that they seem admirably adapted for the *acclimatization* of European troops, for the quartering of *newly-arrived drafts* and *regiments*, for the *strengthening* and *training* of *recruits* and *young soldiers under the age of* 22; for the recovery of *convalescents* and soldiers *weakened* by *certain forms* of disease, and in a *striking* degree for the *rearing* of *European children.*

In a financial point of view, such a quartering of European troops would be a gain; fewer invalids would have to return to England, consequently fewer drafts from home would be necessary, and transport, recruiting, and other expenses would be lessened.

The Sanitarium proper.—The hill station of Aboo occupies a favourable position among Indian sanitaria. Its position is central for Guzerat and Rajpootana; its climate is agreeable and salubrious throughout almost the whole year; there are no hot winds; the rain-fall does not equal that of the Island of Bombay; the place is not blocked up with snow as in some other sanitaria during the cold weather; there are facilities for making good roads up and on the hill; the soil is porous, and easily drained; the water is good and sufficient; English fruits and vegetables grow vigorously, and there are facilities for boating, shooting, cricketing, &c., seldom combined in one station.

The Aboo climate appears well-adapted to the European constitution. Children thrive well, and have an English colour and firmness of muscle.

Recruits and young soldiers, sent up drooping and weakly from the debilitating effects of the Deesa heat, soon put on flesh and colour.

The effect of the heat on young soldiers is well-marked in the Guzerat plains. Deesa statistics of health are very favourable on paper, but the men, though not actually suffering from disease, after a time become pale and cachectic-looking, faint, and unequal to much exertion of any kind.

By a residence at Aboo for a year or two, on arrival, they would become acclimatized, and might be paraded and drilled morning and evening without fear of overworking or distressing them. As comparatively strong and drilled soldiers, they could then be sent to do duty in the plains, to make way for the freshly-arrived drafts. This object of acclimatizing and preparing recruits and young soldiers should be considered as of infinite importance, and to be kept in view in extending the usefulness of Aboo as a sanitarium.

Invalids.—As a sanatorium for invalids, the Aboo climate, *at certain times of the year,* is well-adapted for a *certain selection* of cases.

For *all cases,* the most beneficial season for a change to Aboo is that of the hot weather.

The monsoon weather, being cool and mild, is also adapted to many cases that droop and sink in the hot monsoon of the plains.

The winter months, from December to March, are very healthy to most men, but should be avoided by those suffering from any organic visceral disease, lung-affection, syphilitic or rheumatic weakness.

It is difficult to say how great an improvement would appear in the statistics of disease at Aboo, especially during October and November, if the soldiers' barracks were removed to a high and healthy site; but, judging from the residents and Laurence School children, fever would probably almost disappear; and, at this transition-season, almost all the admissions are under that head.

The following forms of disease do *not* appear to receive positive benefit, with occasional exceptions:—

1. *Rheumatism,* in its acute and chronic forms, receives but little benefit, except for a limited time in April, May, and June. The cachexy, in such cases, may be somewhat altered for the better if it is not syphilitic.

2. *Secondary syphilitic complaints* receive little benefit, especially in the rains and cold weather, which seasons may be found positively prejudicial.

3. *Hepatic complaints,* acute or chronic, do not benefit. In the hot months slight benefit might accrue to the general health, and sleep be possible at Aboo which cannot be procured below. Men quite convalescent from

hepatic disease may benefit in the warm months, and, possibly, in the monsoon.

4. *Pulmonary complaints* are commonly aggravated on the hill, although the weak phthisical patient may at some stages be strengthened by the change.

5. The climate is inimical to *Heart* disease.

On the other hand, patients suffering from the following diseases generally derive benefit from the change to Aboo:

1. *Intermittent Fever.*—Here the effect of change is very striking. The paroxyms abate in frequency and strength, and the patients put on flesh and colour.

From 1st November to 15th December no fever cases should be sent to Aboo, but rather be returned to the plains, so long as the present barracks are inhabited. When they are removed this season will, probably, be no exception to the general rule throughout the year.

2. *Dyspepsia, idiopathic,* is generally much benefited.

3. Chronic and obstinate *ophthalmia, ulcers,* and *discharges,* receive marked benefit by the change.

4. *Diarrhœa* and *Dysentery* are benefited in different degrees. Diarrhœa much. Dysentery in a less degree, but still perceptibly. Dysentery arising on the hill is quite as amenable to treatment as in the plains, and convalescence usually more rapid.

In general debility, and slow and lingering convalescence, a change to Aboo in the hot weather, or even the monsoon, is likely to be of much benefit.

Hill *diarrhœa* is unusual at Aboo, except at the beginning of the rains.

Cholera, small pox, and other epidemics are almost never heard of.

Barrack Accommodation.—At this date (December, 1859) there are two barracks at Aboo, made to accommodate 120 men, and a patchery, occupied temporarily as a hospital, and calculated for about forty patients. In all, there is room for 160 men; but they are not well accommodated. They are not so well housed as most troops in the plains. They are living in the lowest and most unhealthy site that could be chosen, and it is a sanitarium where half the men are invalids.

The two barrack huts are placed in a valley, near the north end of the lake. This valley is the channel by which, in the monsoon, a large quantity of the rain that falls on the surrounding hills finds its way to the lake, and at most seasons a small stream runs down its centre. Commencing at the north end of the lake, a marshy prolongation of which

runs up it for a little way, the valley is continued in an easterly direction for about half a mile, when it turns off to the north-east, and, narrowing much, opens at last on the Dilwara basin.

The barrack valley is about 550 yards long, and at its broadest part, namely, where the barracks are built, it is about 100 yards broad. It is flanked on both sides by hills, which, on the north side, rise to a height of about 300 feet, and, on the south side, to a height of about 150 feet.

This southern range cuts off and hides it from the rest of the station.

The place where the barracks are built is only a very few feet above the level of the lake. The Barrack No. 1 is 350 yards from the lake, and the other is some yards still further up the valley. They are both built nearly parallel with the length of the valley, and run almost east and west.

All breeze nearly is excluded from them, except the westerly, which, entering the valley at its junction with the lake, is guided along by the flanking hills, through its whole extent.

This wind is generally cold and moist, and brings with it the disagreeable lake smell, which has often been complained of by the men.

The soil of the valley is naturally soft and marshy, and requires a good deal of drainage to keep it dry. Until very lately, and after being strongly represented, the drainage was superficial and imperfect, but it is now vastly improved.

The soil thrown up from the trenches in deepening the drains was particularly remarked to be quite wet and heavy, even although the earth is of a porous character. But it is natural, in so great a depression, that the water should filter down into it, from the higher levels, and lodge.

In the cold months, probably, as the effect of exhalation from this ground, the valley air is cold and raw up to a late hour in the morning, while the higher ground is warmed by the early rays of the sun.

This site, the barrack valley, has been occupied since 1843 by soldiers, encamped or hutted.

The two old hospital buildings, and the two first built barracks, are now removed. Two new barracks have been erected, but no hospital. There is at present no hospital proper. A patchery, intended for twelve families from Deesa, is temporarily used to contain the sick.

Many attempts have been made by the medical officers in charge of the Sanitarium to have the barracks and hospital removed to another part of the station, but the

mutiny of 1857-58 interfered with arrangements that were then being made for their removal.

In September, 1859, after repeated representations from the Commandant of Aboo, a Committee was appointed to consider what new buildings were advisable to replace the condemned ones, and to select a convenient and healthy site on which they should be erected.

One piece of ground has invariably been selected, as pre-eminently suitable and desirable in every sense.

It is a moderately extensive plateau, about the same distance from the church as the present site. It is called *Gundummuck.*

It lies in a south-easterly direction from the present barracks, about three-quarters of a mile distant.

It is higher than any occupied site in the station. The approach to it is excellent; the immediate fall from it on all sides secures dryness and successful drainage; there is facility for well-sinking round about the place; there is no hill or intervening object to shut out the breeze from all sides; there is an excellent airy height at one end for the hospital, and sloping ground to leeward for cook-houses, latrines, and houses for native servants.

The present two barrack-buildings are situated in the centre, or broadest part of the valley, and are 182 yards apart.

They are long tiled huts, of wattle and dab, and, as the building used for hospital purposes, are so defective in all sanitary points, as to material of which built, system of construction, and means of ventilation, &c., that details of the kind, as to such temporary buildings, would be superfluous.

Garrison.—Aboo is garrisoned by 80 soldiers, and there are usually from 40 to 80 invalids and weakly men in addition to these.

Duties.—The duties of the little garrison are very light. There is a barrack and hospital guard, a duty occupying eleven men daily. The men have from eight to twelve nights in bed, generally.

Rations.—There is some sameness in the diet, no beef being procurable.

Each man has one pound of fresh mutton daily, and every third Wednesday one pound of salt pork is issued instead.

The men have their meat cooked according to their own liking.

Each has one pound of good bread and one-third of a pound of onions daily; and four ounces of rice, with salt, tea, and sugar, in usual and sufficient quantity. Other vege-

tables, such as pumpkin and sweet potatoes, are issued when they can be procured.

The men have two tea-meals; one at 8 A.M., and the other at 4½ P.M., and they dine at 1 P.M.

Out of 150 men, who have been at Aboo for the past seven months, the average number who drink their daily quart of porter has been 72, while the arrack-drinkers have averaged 42. On the whole, a little more than half the liquor ration has been consumed.

Suggestions.—The points which ought chiefly to be attended to in making the soldiers comfortable, and restoring the invalids to strength, thus developing the climatic benefits of Aboo, may be summed up in the form of a few suggestions:—

1. That the barracks and hospital, and other buildings, should be constructed on a high, dry, and healthy site.

There is no site so unobjectionable as Gundummuck, and the present site is defective in every sanitary respect.

2. That they be built of pucka *well-burned* bricks and lime, instead of the present wattle and dab arrangement, which is saturated and damp in wet weather.

3. That the floors be *always* paved with large well-burned bricks, pointed with chunam.

4. That the hospital ward should not be very broad, but lofty.

5. That the verandahs should be broad and spacious, and, on the windward, or both sides, adapted with glass windows and doors to admit of any amount of airing or draught required, and also of complete protection against excess of breeze or mist.

6. That the buildings should be elevated on a strong stone foundation, at least four feet above the ground.

7. That the system of overlapping roof-ventilation be always adopted.

8. That the admission of light be an object always kept in view, and a large number of doors and windows inserted.

9. That a large convenient bath-room, chunamed and sloped, be provided, containing in one corner a fixed boiler to supply hot water when required.

10. That a convenient and commodious drying-room be built near the barrack, in which, in the wet weather, by means of cross ropes or bamboos, and several stoves, the wet or damp clothes, or bedding of the men, could be expeditiously dried, without affecting the air of the barrack-room.

11. That a good-sized, comfortable room, with a fireplace, be built for the men to lounge, read, or amuse themselves in, especially in the bad weather, when they cannot go out. Here the newspapers, books, draught-boards, &c., might be supplied.

12. That a *complete* and *thorough* system of deep-drainage be invariably carried out all around the barracks and hospital.

13. That the system of soldiers' gardens be carried out practically, and European tools and seeds supplied to them. In this way, fruit and vegetables might often be procured, and with profit to the diligent gardener.

14. That latrine-soil and offal be removed to a considerable distance, and made subservient to the gardening, &c.

15. That the cases for removal to Aboo, as invalids, be carefully selected by the Medical Officers, according to the established experience of hill climates; and that, *as a general rule*, the commencement of the hot season be preferred for the transfer.

16. That dry, well-paved roads be made between the different buildings in the camp.

Meteorological Table.—Mount Aboo.

6 A.M.

	1855.		1856.		1857.		1858.		1859.	
	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.
January	..	..	55·3	49·9	47·8	44.0	..	..	..	..
February	..	..	52·7	48·7	55·8	42·4	57·8	44·0	..	..
March	63·9	56·6	66·9	59	63·1	53·5	..	..	57·9	..
April	63·5	58·3	72·0	63·9	67·7	53	8	70·5	61·0	65·1
May	72·2	64·9	75·4	64·9	72·5	60·0	..	..	72·4	..
June	72	1	68·7	70	5	68·1	..	..	..	..
July	68·0	67	5	68·8	67·7	73·6	59·8	69·1	..	69·4
August	64·2	63·2	66·4	65·1	..	..	63·4	..	66·9	..
September	65·4	64·4	65·2	63·3	67·0	64·1	63·5	..	66·0	..
October	64·0	59·2	..	..	67·0	61·0	62·5	..	66	..
November	69·0	55·2	..	..	..	..	59·3	..	65	..
December	51·2	47·9	..	..	..	..	55	7	..	..

10 A.M.

	1855.		1856.		1857.		1858.		1859.	
	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.
January	..	..	65·7	55·1	53·3	47·8	..	..	..	..
February	..	..	66·8	57·5	69·9	58·4	60·0	47·0	..	..
March	72·9	62·6	78·7	67·3	72·2	61·0	..	..	70	8
April	74·3	63	3	80·9	69·1	55·5	57·9	79·8	62·5	75·2
May	80·5	66·9	81·7	68·2	79·2	62·9	..	..	83·1	..
June	78·4	71·8	74·8	70·1	..	..	..	..	76·5	..
July	69·9	69·2	70	9	68	8	75·2	64·3	72·7	..
August	68·3	66·5	68	5	66·0	..	..	65·0	..	68·7
September	68·4	68·0	69·1	65·7	71·2	64·2	66·0	..	69·0	..
October	75	5	63·8	..	..	73·8	65·0	70·5	..	72
November	72·3	63·4	..	..	..	..	..	66·2	..	72
December	67·5	56·0	..	..	..	..	60·6	..	..	..

4 P.M.

	1855.		1856.		1857.		1858.		1859.	
	Dry	Wet.	Dry	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet
January	..	..	71·9	60·2	60·4	52·0	..	..	..	..
February	..	..	77·3	58·6	73·4	61·3	62·0	53·0	..	..
March	78·0	65	5	85·2	70·3	81·9	65·1	..	..	76 5
April	80·2	65·1	89	3	73·5	75·5	62·7	80·4	71·6	82·5
May	90·0	71·0	89·1	71·5	81·8	64·6	..	..	86·4	..
June	85·5	74·2	83·4	72·9	..	..	..	..	80·0	..
July	71·0	68·0	74·0	71·5	75·1	64·5	74·6	..	81·6	..
August	73·3	68·3	68·5	76·2	..	..	64·2	..	69·1	..
September	72·2	69·4	71·3	67·6	72·3	65·0	74·0	..	72·0	..
October	81·2	66·1	..	..	74·4	64·2	79·0	..	76	..
November	76·0	64·3	..	..	..	..	67·6	..	74	..
December	73·3	61·2	..	..	..	..	67·5	..	..	..

10 P.M.

	1855.		1856.		1857.		1858.		1859.	
	Dry.	Wet.	Dry	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet
January	..	..	56·7	51·8	49·6	46·5	..	..	..	..
February	..	..	56·8	52·4	55·1	45·4	..	..	..	..
March	68·1	57·7	66·3	63·8	67·0	56·2	..	..	..	..
April	65·4	57·3	81·3	67·8	69·7	56·9	..	..	..	..
May	75	0	65·4	82·1	69·0	72·8	60·3	..	..	..
June	68·4	65	1	77·6	70	5	..	..	..	..
July	68·6	68·0	71·5	69·2	70·7	62·6	..	..	..	..
August	65·9	64·2	67·5	66·4	..	..	..	..	..	..
September	66·2	65·2	66·6	64·2	66	1	61·0	..	..	..
October	69·2	63	0	..	..	70·5	62·5	..	..	..
November	66·2	57·5	..	..	..	..	..	..	..	..
December	57·2	52·2	..	..	..	..	..	..	.	..

Mean.

	1855.		1856.		1857.		1858.		1859.		General Mean.	
	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry	Wet.
January	56·0	..	62·4	54	3	54	..	47	..	61	..	56·0	..
February	61·9	..	63·9	54·3	67·5	..	53	..	64	..	62·0	54·0
March	70·7	60	6	74·2	65·2	69	..	45	..	61	..	63·9	62·9
April	70·9	61·0	80·7	68·5	71	..	..	..	76·5	..	74·7	64·7
May	80·2	67	2	82	0	68·4	77·5	..	..	..	77·5	..	79·3	67·8
June	76·0	70·0	76	5	70·4	77·5	..	..	..	80	..	77·5	70·2
July	69·3	68·2	71·3	69	3	73·5	..	69	..	77	..	72	0	68·7
August	67	9	65·5	67·7	66·4	72	..	63	..	71	..	68·3	65·9
September	68·0	66·7	68·0	65·1	71	..	68	..	70	..	69	0	65·9
October	72·5	63·0	..	..	72·5	..	70·5	..	70	..	71·8	63·0
November	68·6	60·2	..	..	..	..	66·5	..	69	..	67·5	60·2
December	62·3	54·3	..	..	49	..	62	..	..	..	57·7	53	3

Daily Range, Dry.

	1855.			1856.			1857.			1858.			1859.		
	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.
January	..	..	..	23	11	15·8	..	..	..	..	..	..	..	..	..
February	..	..	..	25	10	19·4	..	..	..	..	..	..	..	..	..
March	20	8	13	8	29	9	17·6	..	..	..	..	..	..	..	..
April	22	10	16·7	25	9	17·3	..	..	..	..	..	..	..	..	..
May	24	12	16·7	20	9	14·1	..	..	..	..	..	..	..	..	..
June	31	12	18	5	19	10	13·2	..	..	..	..	..	..	..	..
July	12	..	3·7	13	..	5·1	..	..	..	..	..	..	..	..	..
August	14	4	9	3	7	1	2·8	..	..	..	..	..	..	..	..
September	15	2	7·2	11	1	6·7	..	..	..	..	..	..	..	..	..
October	28	9	16·9	..	..	..	..	..	..	..	..	..	..	..	..
November	27	13	19·5	..	..	..	..	..	..	..	..	..	..	..	..
December	27	12	22·1	..	..	..	..	..	..	..	..	..	..	..	..

Temperature Extremes.

	1855.		1856.		1857.		1858.		1859.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
January	76	28	77	48	66	43	67	47	71	51
February	81	44	82	48	90	45	69	40	70	58
March	84	57	95	60	84	54	75	58	74	71
April	87	59	93	64	81	61	83	60	91	62
May	96	69	96	64	85	69	..	..	90	65
June	98	64	89	67	89	66	..	..	92	68
July	80	66	82	66	80	67	78	62	87	67
August	82	62	72	64	79	65	69	62	77	65
September	80	61	78	61	79	63	76	61	76	65
October	86	55	..	..	78	65	79	62	76	63
November	85	54	..	..	..	..	78	55	74	54
December	77	48	..	..	67	31	74	50	..	..

Thermometer in Sun's Rays, at 4 P.M.

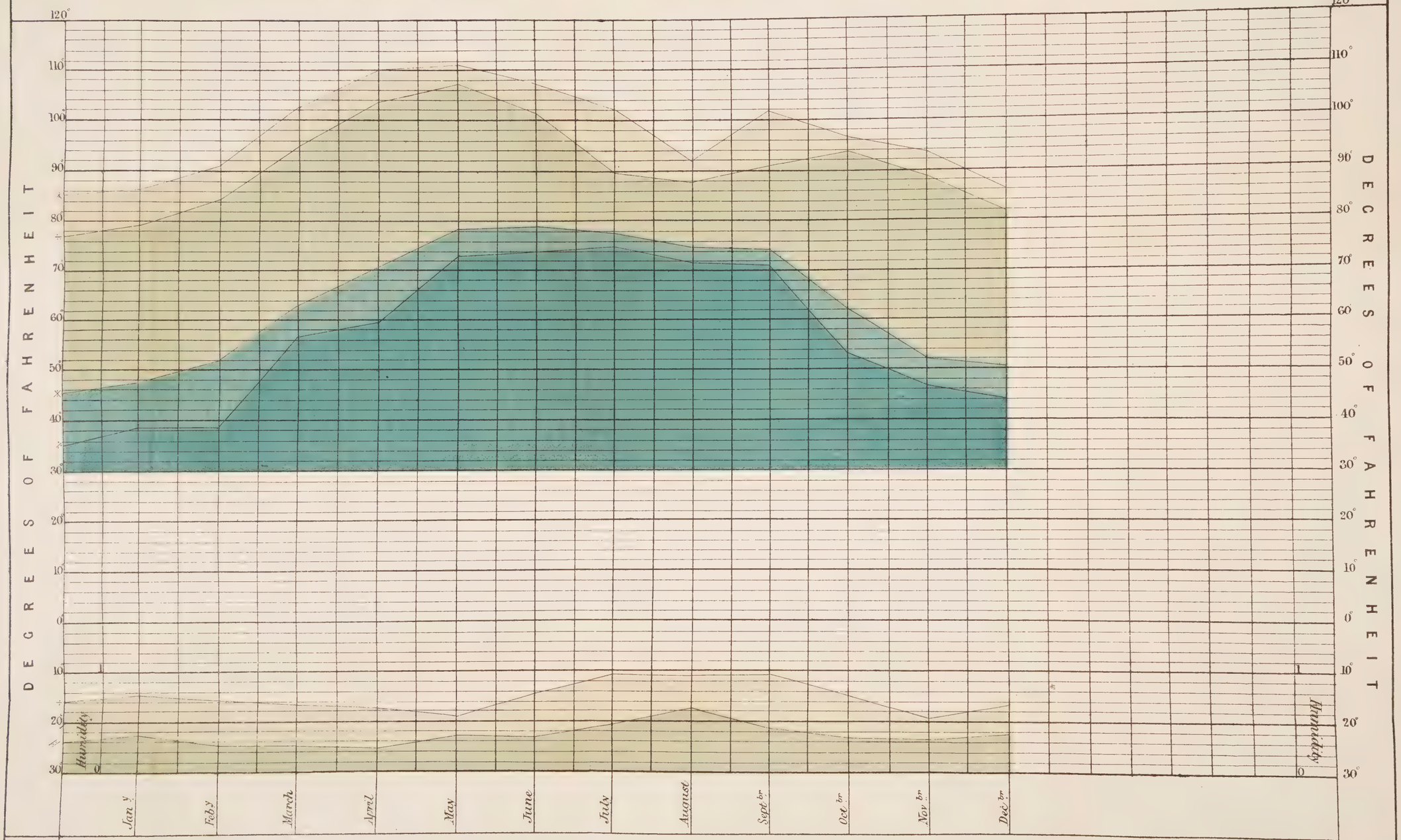
	1855.			1856.			1857.			1858.			1859.		
	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.
January	..	..	..	100	70	79	9	83	70	..	..	..	..	..	..
February	..	..	..	93	75	82·8	104	63	..	94	89	91	..	..	..
March	..	..	..	101	90	96·5	102	90	..	..	..	..	..	..	..
April	100	86	94·7	105	88	99·8	102	88	..	..	..	..	..	..	..
May	112	97	104·1	100	98	94·9	106	94	..	..	..	..	..	..	..
June	112	94	101·2	94	84	88	0	104	88	..	..	..	..	..	..
July	88	79	82·0	86	77	82·1	89	79	..	89	78	83	..	..	..
August	94	78	82·4	..	..	..	..	..	..	87	79	83	..	..	..
September	100	78	88·0	88	69	80	0	86	79	..	76	66	71	..	..
October	108	82	98·1	..	..	..	89	80	..	..	..	..	..	..	..
November	100	84	89·9	..	..	..	..	..	..	..	..	..	..	..	..
December	102	86	97·6	..	..	..	93	82	..	..	..	..	..	..	..

Rain.

	1855.		1856.		1857.		1858.		1859.	
	Amount in Inches.	No. of Rainy Days.	Amount in Inches.	No. of Rainy Days	Amount in Inches.	No. of Rainy Days.	Amount in Inches.	No. of Rainy Days.	Amount in Inches.	No. of Rainy Days.
January	1·00	1	..	..	2·48	5	·5	1	..	..
February	..	..	..	..	1·10	1	..	..	..	..
March	..	..	..	..	..	..	..	..	..	..
April	0·48	2	0·91	1	..	..	..	..	·11	1
May	..	..	..	..	1·40	1	..	..	·20	1
June	3·81	8	2·21	8	15 27	8	2·32	2	8·31	9
July	52·01	28	24·10	24	6·84	16	46·21	26	24·6	10
August	2·58	14	35·71	31	23·84	20	6·18	20	16·14	9
September	9·90	18	6·62	9	20·15	20	6·77	11	6·36	11
October	..	..	..	..	·34	3	..	..	..	..
November	..	..	..	..	..	..	..	..	..	..
December	..	..	..	..	..	..	..	..	..	..

(·112* .. *)

THERMOMETER AND HYGROMETER DIAGRAM.



REMARKS.

The self Registering Thermometer was that used, and the observations extend over the 24 hours.

Day & Son, Lith.rs to the Queen

N.B. The Max: and Min: Temperatures should be inserted for the day before that on which they are registered.

Topographical and Sanitary Report on Umballa and its Vicinity, Upper India.

By Dr. KENDALL, *Surgeon, H. M.'s 7th Hussars.*

The cantonments are situated in the district of Umballa, in the military division of Sirhind, an extensive territorial division of Hindoostan, bordered on the north by the Punjab, on the east by Sirmoor and other Hill States, and by the British districts of Saharunpore, Paniput, and Rohtuk, on the south by Rohtuk and Hurreeana, and on the west by the State of Bahawulpore.

It is about 220 miles in length, from east to west, and 160 in breadth, and lies between latitude 29° 3′ and 31° 24′ N., longitude 73° 50′ and 77° 39′ E. The superficial extent is probably about 17,000 square miles. Sirhind, in nearly its whole extent, is a level plain, except where the surface, at the north-east, rises into the lower ranges of the Himalayas.

This small extent of elevated surface terminates, at the north-east frontier, in a low range, which stretches seventy-five miles in a north-east direction, from near the left bank of the Sutlej, a little above Ropur, to the right bank of the Jumna, close to its efflux from the Dehra Doon. This range, consequently, extends from about latitude 30° 22′, longitude 77° 38′ to latitude 31° 2′, longitude 76° 40′. It is the lowest step of that hill tract described by Dr. Royle in the following passage :—"The low range of hills, frequently separated from the true Himalayas by diluvial valleys, or doons, such as that of Dehra, seldom attains an elevation of more than 3,500 feet, or 2,500 feet above the plains of Northern India." The principal passes across this range were 2,339 feet, and 2,935 feet before they were cut down.

The plain, which forms the rest of Sirhind, slopes very gradually from north-east to north-west, and is unbroken, except by depressions swept by water-courses, or by sand hills, especially in the more barren tract, which extends over the west, and adjoins the territory of Bahawulpore and that of Bhutteeana.

A few years ago a survey was made, by order of Government, and a line of levels taken, for ascertaining the practi-

cability of connecting the Sutlej and Jumna, by canal, at the points on those great rivers where the downward navigation commences for vessels of any considerable burthen. The south-eastern extremity of the line contemplated is on the right bank of the Jumna, six miles east of Kurnaul, at an elevation of about 1,000 feet above the sea; and it held a course, in a direct way, nearly due north-west, to Loodiana, on the left bank of a navigable channel of the Sutlej. This line, 112 miles long, crosses all the water-courses flowing from the Himalayas, and, probably, traverses the roughest part of the country. The inequalities result either from ridges rising to small elevation above the average level of the country, or from shallow valleys, apparently formed by the numerous streams.

The country, however, in proceeding westward, has a general and gradual rise, which attains its maximum elevation, 67 feet, at Kuddoo, ninety miles from the Jumna, whence, in twenty-two miles, it falls to the Sutlej, the level of which is two feet lower than that of the Jumna. Thus, the whole of Sirhind may be regarded as a low ridge, rising between the Jumna and the Sutlej, as the bed of every water-course between these two rivers is invariably several feet higher than that of either.

The country between the Jumna and the Sutlej is traversed by a dozen considerable torrents; of these, the principal are the Sursooty, the Markanda, the Clagur or Cuggur, the Putteeala Nullah, and the Khan-Poorkee Nuddee. These torrents generally communicate with each other during the season of inundation. On this subject a recent accurate observer says: "From near Thanesur to Konaheree, the whole tract of country (with the exception of village sites) is liable to inundation from the sub-Himalaya torrents diffused over its surface by means of a net-work of natural and artificial water-courses, of which some are supplied from more than one of the rivers above-named; others, again, flow from one river into another, and during great floods (as I was given to understand) all three are frequently united."

The British possessions in the cis-Sutlej Sikh territory have been divided into four districts—Ferozepore, Loodiana, Umballa, and Ky Thul. The aggregate revenue is between 18 and 19 lacs of rupees.

Sirhind, situated between the Himalaya on the north and the desert of Bikanur on the south, has repeatedly been traversed by armies advancing to the invasion of India, and hence has been the scene of many conflicts, and other memorable events. As it was saved from the threatened

invasion of Alexander by the mutiny of his troops, probably the first great military operation, recorded to have taken place on its soil, was the capture of Thanesur, in 1011, by Mahumed of Ghuznee. After the death of Mahumed, the Hindoos, in 1043, recovered possession of this place, and the rest of Sirhind. In 1191, Mahumed, the Affghan Prince of Ghor, attempting to recover the Mussulman conquests in Sirhind, received a severe defeat near Thanesur and fled to Ghuznee, but returned in the following year and, having on the same field routed a great Hindoo army, made himself master of the whole country, which continued subject to the Mussulmans until the Sikh outbreak. It escaped the horrors of the invasion of Tamerlane in 1397, as the route of that prince, in marching from Batwur, which he had laid in ruins, to Delhi, only touched the southern frontier; and, having proceeded to Cupeli, or Konpelah, to exterminate the Hindoos assembled there, he returned to Khorasan through the Sewalik mountains, by Jamoo and the southern boundary of Cashmere, probably crossing the Indus above Attok. In 1525, Baber, in his advance against Ibrahim, the Patan King of Delhi, overran and seized the greater part of Sirhind. In 1554, the vicinity of the town of Sirhind was the scene of an action, in which Humayon, the son of Baber, gained a decisive victory over the far more numerous army of his Patan rival, and gave peace to the Mogul Empire. Sirhind appears from that time to have tranquilly enjoyed the imperial favour until the outbreak of the Sikh insurrection.

Umballa is a British district of Sirhind, within the cis-Sutlej division of territory; its centre is in latitude 30° 23′ N., longitude 76° 44′ E.; its area is stated at 1,832 square miles, and its population as amounting to 782,017. It is one of those possessions which, previously held by a Sikh Sirdar, was escheated to the East India Company in default of rightful heirs. This district was seized by Runjeet Singh during one of his marauding expeditions to the left of the Sutlej, and that aggression occasioned, in 1809, the movement of British troops, which resulted in the conclusion of a treaty with Runjeet, by which he was required to withdraw his army from the left bank of the Sutlej, and relinquish his recent conquests in Sirhind. The town of Umballa is the chief place of the district and lies on the route from Kurnaul to Loodiana, fifty-five miles north of the former, and sixty-nine south-east of the latter. It is a large walled town, situate in a level and highly cultivated country, well provided with water, and capable of furnishing abundant

supplies. The houses are built of burnt brick, but the streets are, in general, so narrow as scarcely to admit the passage of an elephant. The population of the town is given at 21,962.

There is a fort at the north-east end of the town, and under its walls the old encamping ground of the British troops is situated.

The height of the town above the sea is 1,040 feet; distance from Calcutta, north-west, by Lucknow, Delhi, and Kurnaul, 1,020 miles; latitude 30° 24′, longitude 76° 49′.

The soil of the district is loamy (called "rouslee"), over the whole of which, at one time, and perhaps for many years, rivers have traced their course, leaving their valuable deposits of decomposed vegetable and mineral matter to fertilize the soil. As the deposits have become deeper, the beds of old rivers have been choked up; the water, forced over the surrounding country, has made a new channel for itself, until, after a time, that has again been filled up, and deserted for another course. There is hardly a village over which, in very abundant rains, like those of 1852, the water has not flowed in a sheet. It is from the moisture inherent in the land, from the above causes, that sugar and the best crops grow, without artificial irrigation.

There is no jungle worth noticing. Most hardy trees thrive in the alluvial soil. The produce of the land is of a very fair average.

The land is ill suited for wells; the depth to water varies from 7 to 60 feet, and the depth of water from 2 inches to 16 feet. None of the wells have springs in them. In the hot weather there is difficulty in getting water fit to drink. On account of quick-sands, it is continually altering its courses, so that a well, giving an abundant supply one year, may be perfectly dry the next.

The Játs are the principal cultivators, the others are Rajpoots and mixed classes. The Cantonment of Umballa gives employment to great numbers of the villagers living around.

The Cantonment was laid out in 1843, and comprised 15,871,13 beeghas (9,920 acres of land); it lies to the east of the town about six miles, and between thirty and forty miles south of the Simla Hills, and is about equidistant from, and connecting, the two European stations of Meerut and Ferozepore. It runs north and south, and faces the west, with the exception of its right termination, which faces north, the lines for one regiment being thrown back. Within its boundaries is inclosed a large tract of open wild

country, extending for a mile in all directions, and almost entirely free from cultivation. It is regularly laid out, being intersected in all directions by wide roads, running parallel to each other. The right of the station is well wooded, having some fine topes of old mango trees, and the country generally is better wooded than the left of the line, the soil of which is sandy; in fact, the ground occupied by the European Cavalry and European and Native Infantry was, at the formation of the cantonment, an arid sandy plain. There are now fine trees in the gardens and along the sides of the thoroughfares, but they are of recent date, and not yet to be compared, in luxuriance of foliage or growth, to those on the right.

On account of the want of material for road-making, all the roads, with the exception of the principle ones, consist of nothing but the soil smoothed down, consequently, in wet seasons, they are almost impassable, and, in hot seasons, cause considerable inconvenience and annoyance by the quantities of loose dust accumulated on their surface.

The Grand Trunk Road runs through the station, and is made up of "kunka," a composition of lime, said by geologists to have been the formation of insects (similar to the coral) when the whole level surface of India was covered by the sea. This kunka is brought some ten miles, and is, thus, rendered expensive. All the "pucka," main, or permanent roads, are made of it, excepting the "Mall,"—this is formed of broken bricks, the refuse of the kilns, and which is very durable.

The soil is generally a rich and productive alluvial, of some depth, and partakes of an argillaceous character, resting on beds of sand, of greater or less depth, and shifting (quicksands).

Some parts of the Cantonment, the left especially, are very badly off indeed for water, depending entirely on what is obtained from wells; these, from the nature of the sand beds, are continually failing, and the residents are thus put to considerable inconvenience. The right flank is very much better circumstanced, the wells affording a continual supply. The cavalry are particularly fortunate in this respect, for, in addition to seven wells in their lines, there is an aqueduct running along the whole front of the bungalows, and having a reservoir opposite to each, which affords an unlimited supply. The source of this was discovered, a short time since, only a few feet from the surface, and too much praise cannot be accorded the authorities, for it was immediately made available for the use of the troops; thus rendering

this station (the cavalry portion of it), before so much in want of water, one of the very best in Upper India in this respect.

The climate of Umballa is hot; in 1838, the thermometer reached 112° in the shade at noon, and, in January of the same year, it at no time fell lower than 33°. During the six months of 1859 the 7th Hussars have been at the station, the thermometer has ranged between 108° and 62° in the shade at noon, these being the highest and lowest numbers of degrees.

The rains usually begin about the second week in June, and last until the end of September; they are in some years very heavy, flooding the whole of the adjacent country. In 1852, the rains lasted for some days in succession, and the whole Cantonment was under water to the depth of two feet. Many of the bungalows, being built on the ground, and not raised on "chaboutras," had one or two feet of water in them. The rains during the present year, 1859, have been light; the heaviest fall was on the 28th September, on which date the measuremeut was $2\frac{5}{20}$ inches. In seasons of drought, the inhabitants suffer a good deal, as the wells afford an insufficient supply, and there are no large streams within several miles; the nearest river is five miles off. The rains are usually accompanied by severe storms of thunder and lightning, and are frequently preceded by dust storms, of great density, which may be seen coming for a considerable time before their effects are felt. The blast which announces their approach is hot and suffocating, and of sufficient force, at times, to unroof bungalows and uproot the largest trees. As soon as the storm is passed over, doors and windows are thrown open, in order that none of the cool, refreshing breeze, which usually follows, may be lost. After the hot and close days of this season, this breeze is especially grateful, and duly appreciated by man and animals. There are occasional slight shocks of earthquake experienced.

Umballa stands below the medium rank of healthiness, among our stations for European troops. The station has gained a bad character for cholera outbreaks, which appear to be in great measure attributable to the inundations to which the neighbourhood is liable. There are, however, reasons for believing that its unhealthiness is partly owing to the faulty condition of some of the barracks. In the Medical Board's report for 1852–3, it is noticed that the medical officers, who had reported upon the recent epidemic of cholera at Umballa, remarked that this disease and fever appeared to run their course together, and that both were

attributed to malaria consequent on the inundation of the country. The cholera epidemic was, however, almost confined to the barracks of the European soldiers, whereas the natives, and the station generally, suffered chiefly from fever. It was observed that "the symptoms of nearly all the fever cases, treated in hospital at the above period, bore a resemblance to those of cholera." It has been remarked that the somewhat high rate of mortality at Umballa (during the eleven years ending 1854–5) appeared to have been nearly confined to the infantry; and a principal medical authority, for several years resident at the station, observed that, in successive seasons, when the men of the artillery were exceedingly healthy, much sickness prevailed and many deaths occurred among the infantry; a result, apparently, from the circumstance that the barracks of the latter are built on a different plan, occupy a less desirable site, and admit of less perfect drainage than those of the cavalry and horse and foot artillery.

Nullahs run around and through the station, and water is thus carried off. There is a gradual slope in front of the barrack of the Cavalry towards the west and, thus, the rain is quickly carried away. Numerous ditches, running in all directions, through the lines, carry the water to large nullahs situated to the east. Great attention is requisite to keep these ditches free, as vegetation is abundant, and foreign matters quickly accumulate, and choke them up; they ought to be thoroughly cleansed about May or June, immediately previous to the accession of the rainy season.

The duties in this station are light; they consist of the ordinary barrack-guards, chiefly, during the hot season; and, during the colder months, the more frequent drills, field-days, and other military evolutions are carried on.

During the hot weather the usual out-door amusements of soldiers cannot be followed; but, from the month of October to the end of March, the men can attend to their respective tastes without any detriment to health, and the various games of cricket, of the ball-court, &c., can be practised.

If gymnastic exercises, and the usual manly sports of Englishmen, were more encouraged, in fact, made a part of the soldier's drill, much good of a hygienic nature would result at a station of this kind, like those of India generally, where sameness produces so much of tedium in his daily course of ordinary life.

If Government would give prizes annually, or oftener, or hold out some chance of distinction to the best performers

in the gymnastic drills, much good would result, especially in this country, where the soldier is too apt to become indolent and apathetic. The duties ought to be made attractive, and this can only be done by the soldier knowing, that, if he excel in any one thing, it will be noted to his advantage. Many men may be excellent swordsmen, first-class manêge riders, or superior shots, and yet not be fit for promotion on account of want of education. In consequence of this, many lose all desire for their drills, or even stimulus to exertion or emulation. If a medal or badge could be instituted, and allowed to be worn by the best man at each of the military exercises, a spirit of pride and emulation would be induced, which might make the men better soldiers, and more interested in their duties.

The daily rations of the men consist of bread, meat, rice vegetables, and tea. These, being always of good quality, contain sufficient nutritive properties to keep even the strongest man in health; but the part in the service least considered as yet in India is the cooking, the same old routine plan is still adhered to, viz., stewing, and the means of roasting, baking, or other variety, are not yet afforded. The robust and hardy can mostly eat and digest anything, and derive nourishment from it, but the weakly soldier, in very many cases, loathes the food thus cooked, and, unless he buys luxuries out of the balance of his pay, has to go without; this tells upon his health, and he soon becomes an inmate of the hospital. If some improved cooking apparatus or ranges were adopted, and issued for use of regiments in cantonments or barracks in India, and a proper culinary staff attached, much good would be effected. Anything, or everything, which tends to raise the health of the British soldier, especially in India, where his intrinsic cost to the State is so great, ought to be adopted. The amount saved to the country annually would be great, and the morale and efficiency of the troops would be raised.

Topographical Report on the District and Station of Ghazeepore, North-West Province, Bengal.

By J. W. FLEMING, F.R.C.S., *Surgeon, 37th Regiment.*

The now well-known, and oft-described, district of Ghazeepore is situated in an Upper or North-Western Province of Bengal, and derives its name from the chief town standing upon the banks of the Ganges. By reference to a map of this portion of India, it will be found to be bounded on the north-west and north by the district of Azimghur, also a military station; on the north-east by the now important Gogra; on the south-east by Shahabad, and partly by Benares; on the west by the districts of Jounpore and Benares respectively.

It lies between latitude 25° 17′—26° N.; longitude 83° 8′—84° 40′ E.; and may be said to be about 96 miles in length from east to west, and 40 in breadth.

The principal rivers which intersect and flow through the district are the "mighty Ganges"; the Gogra, rendered somewhat familiar by the recent military operations along its course; the Karamnassa, of some size; Tons-Bisu, and the Manghi; the first three, however, being the most important.

Generally, the country may be said to slope gently from both sides of the Ganges, probably in the degree of seven or eight inches in a mile, from north-west to south-east. As in almost all other parts of the province the face of the country is flat, and interspersed with but very few trifling elevations; jheels or shallow lakes, nullahs or small water-courses, and patches of swamp, are common. The greatest elevation of the waterway of the Ganges—towards the western extremity of the district where it is highest—is about 260 feet, and, in consequence of the extremely flat and undeviating nature of the ground, it probably nowhere exceeds 350 feet above the level of the sea.

The population may be considered as amounting to nearly one million and a-half, of all castes and creeds, engaged chiefly in agricultural pursuits. For the most part, the

natives are poor, and their habitations partake of a like character, being built of mud, in some few cases covered with tiles, but commonly with grass or mat thatch.

The cultivation of maize, rice, indigo, wheat, barley, small quantities of cotton, tobacco, and the poppy, is much attended to; and the sugar-cane grown in the north-west is generally much valued for its superior quality.

The roads throughout the district, available for military use, amount to five, all of which are generally in a state of good repair, with the material for so doing close at hand. They lead to Azimghur, Benares, Gorruckpore, &c.

The principal town, named Ghazeepore, "or City of True Believers," is situated on the left bank of the Ganges, at a distance north-west from Calcutta of 598 miles by water, and 431 by land; north-east from Benares, by water, 71 miles, and 46 by land; east from Allahabad, by water, 210, by land, 120; from the "Grand Trunk Road," on the opposite side of the river, about 28 miles, and to which there is easy access by a good road. It also forms a coaling station for the numerous steamers employed on the Ganges, all of which stop at this place, in proceeding both up and down the river. The city itself is by no means striking in appearance, and many parts are in ruins. It is, however, well kept, and its streets and lanes are, upon the whole, remarkably clean.

The inhabitants amount to nearly 40,000 persons employed in various trades of minor importance; mercantile pursuits, chiefly in cotton goods, and as exporters of grain and other local products. The houses are for the most part composed of mud, or mud-bricks, have tiled roofs, and possess but little convenience; a few are, however, substantially built, particularly towards the river frontage.

The natives, though paying much attention to the cleanliness of their persons, are yet remarkably indifferent to the removal of stagnant accumulations of water, and other noxious matters, too often a common source of malaria and disease, from the effects of which they at times suffer considerably.

With reference to the important subjects of geology, mineralogy, and botany, my remarks need not be lengthy, because these have been ably discussed by such men as Roxburgh, Wallick, and others, to whose works I would beg to refer for further information.

The climate of this station may, with truth, be stated to be highly salubrious, and, as far as my Indian experience extends, no place can be found in Lower India better adapted

for the residence of Europeans, and for soldiers in particular. The aspect possesses a cheerfulness far beyond what I have elsewhere seen, and at once strikes visitors from other stations, especially from the upper provinces. "Ghazeepore," it has been observed, "is celebrated throughout India for the wholesomeness of its air, which may, in a great measure, be ascribed to the natural advantages of its position; from the elevated level on which it stands, and the dryness of its soil, which never retains the moisture, and after the heaviest showers, is, in a few hours, fit to walk on with comfort." It has, moreover, "a noble reach of the river to the south-west, from which quarter the hot winds generally blow."

The soil, being soft and porous, with here and there strata of calcareous conglomerate, must of necessity help to lessen the moisture of the air during the monsoon, and this may, in some degree, tend to render the jheels, and marshy portions of the district, less productive of disease than might be expected from a soil of opposite character.

The range of the barometer is but trifling, whilst that of the thermometer is more extensive, for, during the "cold season," commencing about the middle of October, and ending in March, it is noticed to be from 46° or 48° to 71° and 75°; in April, 86° to 96°; May, 86° to 98°; June, 85° to 98°; July, 86° to 96°; and even 110° or 120° in the shade, as I have not unfrequently seen it, particularly in the month of May, which is considered the hottest month of the year; and January, with a mean temperature of 56°, is the coldest.

Here, as elsewhere, in the North-West Provinces, the seasons are "the hot," "rainy," and "the cold." The first may be considered to commence about the beginning of April, increasing in heat during May, June, and the half of July; after which month that of the "rainy" is expected, continuing with little intermission till the middle of October, when the "cold season" be ins.

The fall of rain amounts to about 25 inches in the twelve months; on this point, however, I am not very certain, having no pluviometer. The amount of dew is often very considerable, and frequently continues upon the ground till 11 A.M. before it disappears.

The heat of the sun, during the months of May, June, and July, is excessive; and the amount of radiation must be very great. I regret the state of my instruments has prevented accurate observation on this point.

The periodic rising of the Ganges commences about the end of June, and soon overflows its banks, leaving everywhere a rich alluvial deposit as it subsides, prolific alike to animal and vegetable life.

Ghazeepore, during the season, comes within range of the "hot winds," which, while they last, blow with the heat of a furnace, "causing the country to appear sterile, and burnt up, and, though the trees keep their foliage, the earth is stripped of all herbage, as if a flood of lava had flowed over it—drinking rivers dry." Yet, with all the inconveniences, and they are *not* slight, of these winds, troops in cantonment, and Europeans generally, are, upon the whole, more healthy than in the cooler season of the rains which succeed them.

The climate of Ghazeepore may be considered from the 15th of October to the middle of April to be unsurpassed by any region in the world.

Of native fruits, grapes, peaches, custard apples, guava, pine apples, oranges, pummaloes, plantains, mangoes, water melons, and many others abound.

Of English esculent vegetables, the cold season readily produces potatoes, carrots, cauliflowers, turnips, peas, beans, beatroot, raddish, cucumber, cabbage, and others that might be mentioned.

The bazaars are for the most part well supplied with beef, mutton, poultry, fish, and many kinds of game, as wild duck, snipe, &c.

During the smarter frosts of December and January, ice is produced by the exposure of water, to the depth of an inch, in shallow vessels or plates, but this luxury has not as yet been stored at this station in sufficient quantity to be available for general and hospital use. The experiment, however, is being tried at present, and with apparently greater success than heretofore.

Of the diseases met with at this station, it may be noticed that, during January, February, and March, the comparatively cold and dry weather, remittent, intermittent and ephemeral fevers of a very mild description occur; and, occasionally, from careless exposure at night, diarrhœa and colic are induced. In April, May, June, and July, when the greatest degree of heat is felt, the various forms of the above fevers increase, the more "continued" frequently assuming the character of the "ardent fever" of Indian authors. Dysentery, complicated often with hepatic derangement, occasionally severe in type, cholera, and intestinal affections, are met with among the Europeans and natives, alike, at this season.

In August, September, and October, the most common cause of admission into hospital is the ordinary bilious remittent fever of the country, and trifling diarrhœa. During November and December, unless "the rains" have continued far into October, sickness decreases, and but slight ailments of a general character prevail. If, however, the rains have been late in terminating, much sickness continues, chiefly in in the form of hepatic derangements, and ague, with enlargement of the spleen.

Unfortunately, as at all other Indian stations, syphilis, in every variety of form and severity, is the cause of a very large percentage of admissions, and too often permanent disability. There is no building at present devoted to the treatment of native females affected with this disease, though formerly a good Government lock hospital existed within the Cantonment.

Ophthalmia is occasionally met with during the hotter months, when clouds of fine dust blow over the place, but it cannot be said to be by any means a common complaint.

Hepatitis, with or without the dysenteric complication, does not appear to be of such frequent occurrence as at many other stations. The chronic form is, however, somewhat difficult of removal, without, in the majority of instances, a total change of climate. In old soldiers, and hard drinkers, hepatic abscess is remarkably insidious in its appearance and progress, being often fatal; though by no means uniformly so, especially in the younger men, for I have witnessed some remarkable recoveries from this serious disease during my residence at the station.

Epidemics of cholera have occasionally visited this station, and in no way, as far as is known, differed in their commencement, increase of fatality, decrease of severity and disappearance, from those occurring everywhere else.

Small-pox rarely appears among the Europeans, though it is but too common and fatal with the native population. To prevent this, the liberality of Government, and zealous exertions of its officers, are doing much to spread the blessings of vaccination, and it is hoped each year will increase its prophylactic influence, notwithstanding the obstacles of caste-feeling, class-interests, and various social and religious prejudices.

The Cantonment, within the area of which stand the the various military buildings about to be described, is situated about two miles from, and at the south-west end of the town, and immediately on the margin of the left bank of the river. In the intervening space are placed

the gardens, houses, and other buildings occupied by the civil servants of the Government, the native jail, the extensive opium factory, the court-house, treasury, &c. The cantonment and its vicinity are beautifully wooded, the roads good and well laid out, so as to give a pleasing and extensive diversity of walk for exercise and recreation.

Before proceeding to give a description of the buildings now used as barracks, hospital, &c., I may mention, that, though Ghazeepore, but a few years ago, possessed what has been called "magnificent accommodation" for a full European regiment of infantry, and a portion of cavalry, at present only four of the buildings exist: viz., a barrack-room, one of eight such, for a regimental company of foot; the old cavalry hospital, now used as a stud granary; that of part of the old regimental hospital, now employed for the safe custody of materials belonging to the Engineer Department, and than which locality probably a finer site for a hospital does not exist in any station in Lower Bengal, having an aspect and view that must ever have acted with the very greatest benefit on the sick soldier; and, lastly, the square block of building known as the old Commissariat Godown, and still occupied as such. For reasons which I have not been able clearly to ascertain, the European troops were withdrawn in 1847, and what must have been most complete (for the foundations are still traceable), though not altogether desirable, military barracks for Europeans, were soon after pulled down and the materials sold; the few residents with difficulty succeededi n saving the racket and fives' courts from demolition. Since then the station has been garrisoned by a regiment or wing of native infantry, until the outbreak of the late mutiny, when it was, in May, 1857, re-occupied by detachments of the Madras Fusiliers, 78th Highlanders, and at present solely by Her Majesty's 37th Regiment. Soon after the arrival of European troops, the native regiment, 65th Bengal Native Infantry, was withdrawn and sent to China; and there is now no detachment of native troops, unless, indeed, the new "police levy" can be considered such. This corps, however, does not occupy quarters within the military cantonment, for, being chiefly under the civil magistrate, the men are placed in "native lines" nearer the town, and upwards of a mile and a half from the European barracks.

Of the officers' bungalows, but lately in ruins, a few have been repaired, and thus rendered habitable, but the number required for accommodation of the full complement of regimental and staff officers is still deficient; the native owners being unwilling to go to any great expense in the re-erection

of old bungalows, or the addition of new ones, owing to the uncertainty of the continuance of white troops at the station.

The detachments, which arrived here during the early part of 1857, were located, with tolerable comfort, in the large opium factory, near the native town, and on the edge of the river, but, as the numbers increased, other buildings had to be prepared for their reception and, accordingly, six ranges of the Government stud stables were speedily prepared for, and are now occupied by the 37th Regiment. To these have been added tolerably substantial, but somewhat faulty, buildings, although strictly according, I believe, to "the sanctioned standard," for the married men, staff serjeants, prevô, guard-room, increased hospital accommodation, &c.

Within the cantonment are also the Protestant and Roman Catholic churches, both large and handsome structures, and close to the barracks.

The bazaar attached to the cantonment is large, and occupied by natives who supply the European residents with almost everything needed in the way of ordinary wants.

Like all other stations occupied by Europeans, the facilities for procuring intoxicating drinks are common enough, notwithstanding the stringent police regulations of both civil and military authorities. The native liquors here, as elsewhere, are mixed with highly deleterious, and sometimes even poisonous, ingredients; but being cheap, and readily intoxicating, they are too often sought after, and as easily obtained.

The buildings occupied as barracks consist of six ranges of old stud stables, placed near the centre of the cantonment, arranged parallel to each other, with their length running north-west and south-east. They are exceedingly low, and have but one, or ground-story, with which the floor is on a level. They are built for the most part of brick and mud; the roofs are tiled, and a verandah, also with a tiled covering, runs round the building.

The floors are of hard kunkar-brick and stone flags. Those of the verandah are entirely of the same hard calcareous composition.

The ventilation is promoted by a succession of openings along the roof, and by the numerous wide doorways.

There is a shallow drain cut around each building, for the purpose of catching the rain falling from the roofs, and carrying off surface-water.

To each barrack-room there is a detached bath-room and latrine, but these are only "temporary" structures; a covered

way leads from the main building to each of these out-offices.

The water, always good and abundant in quantity, is procured from wells in close proximity to the barracks, and never requires straining, or other means of purification, beyond the regular cleaning out of the wells, which the natives so well understand.

There are three large cook-houses, commodious, and built entirely of brick, with tiled roofs; their interiors are fitted up as best suits the simplicity of native cooking.

The cells are placed at the northern extremity of the ranges of barracks, and intended to contain eight prisoners. They are built of hard and, partially, of mud-bricks, have tiled roofs and dry flag floors; they have a bath-room and latrine attached, and ventilation of the whole of these erections is increased by openings along the roofs. These, together with the regimental guard-room, school-house, and other buildings, are all built according to the standard plan sanctioned by Government.

The Hospital is the only portion remaining of the old Ghazeepore barracks, and is calculated for the reception of 100 patients. It stands at the south-west corner of the ranges of barracks, and not very far distant; its greatest length is from north to south.

Of all the available buildings, it was found to be the best, and, for want of a better, it answers all general purposes tolerably well, but is, of course, very deficient in the chief requirements of a hospital in this country.

It is built entirely of solid brick, and is raised about a foot and a-half from the ground; an inner verandah runs along each side, and it has an outer one at each end.

The flooring is entirely of hard stone flags, which are dry and easily kept clean.

The roof is high in the centre, but slopes to a low degree of elevation at the sides; it is covered with tiles, and along the ridge is a succession of raised openings for ventilation, which is likewise assisted by a very large number of Venetian doorways.

At each extremity of the building, and connected by a covered passage, are placed bath-rooms and latrines. The first have fixed wash-basins, and the latter are so arranged that the contents are removed with the greatest facility; they are of brick-flagged floors and have tiled roofs.

Around the building runs a drain of good size, and made of hard brick concrete, which appears admirably adapted for the purpose.

The water-supply is abundant, and is procured of good quality from adjoining wells.

The kitchen, washing, and dead-houses run due north and south. They are built of brick, and the roofs are tiled.

New hospital bungalows have recently been erected according to the "standard plan" of such buildings sanctioned by Government. They are built partly of hard and mud-bricks; the roofs are tiled.

These are called "merely temporary buildings for hospital accommodation," and it is well so to consider them, for no buildings could be more ill-adapted for the purposes of a hospital in a tropical climate.

Each building is intended to accommodate twenty-eight patients; there is a verandah extending along their two sides for the exercise of the convalescents.

The floors are of hard dry stone-flags, and are raised about 1½ feet from the surrounding ground.

At each end of this new range are situated a bath-room and latrine, both of which are approached by a covered way from the main building. These are well built, with tiled roofs, and are commodious and conveniently placed.

In the immediate neighbourhood of the hospital are placed the quarters of the Hospital Staff, as steward, apothecary, &c., to which there ought to be added one for the hospital serjeant.

Beyond the buildings just described, are situated two ranges of tolerably comfortable, though small, quarters for the married soldiers and their families. They consist of accommodation for thirty families, each having two rooms of unequal size. They are built of hard and mud-bricks, with tiled roofs; wide verandahs extend the whole length of their west front; the flooring is of hard dry stone-flag; good and separate wash-houses and latrines for the men and women are placed at each extremity, and there is a good cook-house in the centre of the rear.

The water for ablution, and general purposes is procured from a large well close by.

Of the general Sewerage there is very little to say, for none, properly so called, exists in this station, beyond the presence of a few shallow saucer-like drains around the various buildings, and along the sides of the roads, which help to convey the surface water to neighbouring tanks, or nullahs, and thence to the river.

The contents of the various latrines, attached to the barracks, hospital, and other buildings, are regularly removed twice a-day to a large tank about a mile and a-half to the

rear. By the free use of charcoal and lime in the latrines themselves, and also in the conservancy carts, beneficial effects are ensured.

In conclusion, I may remark, that it becomes a matter of much importance to consider how far the chief causes of the diseases, fever and dysentery, most common to soldiers, are preventible at stations where they are located; and, as malaria is unquestionably the most prolific in inducing such attacks, it has been observed that—"The remedies, or rather "the weapons to be employed for the annihilation of Indian "fevers (also dysentery and other diseases having a malarious "origin) are, therefore, obvious enough. Whether this vege- "table matter (and, it may be added, animal, too), in process "of metamorphosis and decay, under circumstances of high "temperature and moisture, be in the form of large accu- "mulations spread over the surface of the ground, as is the "case after the middle and about the close of the rainy "season, or in the shape of marshes, exposed alluvial banks "of rivers, lakes and canals, or of cesspools, all of which near "the end of, and after the monsoon, teem with organic matter, "which, having subserved the purposes of vegetable and "animal life, is being rapidly brought under the influence of "chemical laws, it is capable of being rendered innocuous, "or of being destroyed: 1st, by effective drainage; 2ndly, by "proper cultivation, and the thorough reclamation of waste "and marsh lands; 3rdly, by the removal and destruction of "all decaying vegetable and animal matters, or by their "localization in some convenient spot, sufficiently far removed "from any human habitation; 4thly, by the levelling of all "hollow places or inequalities, which might be converted "into cesspools; 5thly, by the complete filling up of all fissures "existing in the earth, both in plains and ravines; 6thly, "by the embankment of rivers (and canals) in proximity to "our stations; 7thly, by carrying these sanitary measures "into execution, not only within, but, if possible, over an "area described by a radius of not less than from half a-mile "to two miles around every cantonment; and, lastly, by "planting a belt of lofty growing trees around the circum- "ference of this protecting circle, for the purpose of impeding "the flight of, or retaining, or absorbing, the malaria wafted "towards the interior by prevailing winds."

Remarks on the Topography of the Military Stations in British Guiana, including Demerara and Berbice, with a brief account of the Colony, its productions and capabilities.

By HENRY C. READE, Esq., *Surgeon-Major.*

British Guiana is situated at the north-eastern extremity of South America. Its limits have been variously described, but I believe it is generally computed to contain about 76,000 square miles, comprising the counties of Demerara, Essiquibo, and Berbice. Guiana, according to most authors, was discovered in 1498 by Columbus, but the earliest evidence of a settlement in the colony is that in 1580, when some inhabitants of Zealand settled near the River Pomeroon.

In 1652, the English formed a settlement there; ten years afterwards the whole colony was bestowed by Charles II on Lord Willoughby, then Governor of Barbadoes, from whose heirs it was bought by the British Crown in 1667, and exchanged with the Dutch Government for New Holland (now New York). In 1711, the British took possession of all the Dutch West Indian colonies, when Demerara and Essiquibo were considered the richest prizes. In 1783, the colonies were restored to Holland, but were taken possession of by the French. In 1796, they were again taken by the British Government, under which they flourished, and commerce rapidly increased until their restoration, at the Peace of Amiens, in 1802, to the Batavian Republic, at which period there was an export of 20,000 hogsheads of sugar, and about 10,000,000 lbs. of coffee. In 1803, Demerara, Essiquibo, and Berbice again surrendered to the British forces; since which time they have continued in our possession.

In 1812, the courts of justice of the three colonies, Demerara, Essiquibo, and Berbice, were united, and the name Statrock changed to Georgetown, the capital of the colony. In 1831, they were united into one colony named British Guiana.

British Guiana is that part of South America extending from the mouth of the Corentyn river, in 56° 58′ west longi-

tude, to Punta Barima, in 60° 6′ west longitude, having a coast-line of 280 miles, lying east and west, bounded on the north and east by the Atlantic Ocean, and extending from north to south about 450 miles, with an area of nearly 76,000 square miles.

It is essentially a low, swampy, flat country, covered with alluvial deposits from the surrounding mighty rivers, and extending inland from the coast from ten to twenty, and, in some places, forty miles, only a few feet above the level of the sea, while it is actually below it at high water and spring-tides; it is covered with a variety of rank weeds, and is wooded to the water's edge. The formation of artesian wells in various parts of the colony has shown that the low grounds consist of strata of blue clay and fine sand to a considerable depth, covered with a layer of rich vegetable mould several feet deep, favouring greatly the growth of the sugar-cane. The low lands are bounded by a range of sand-hills, about 120 feet above the level of the sea, and there can be no doubt that they have been formed by the detritus brought down by the great rivers, and deposited at their mouths. Beyond the sand-hills is a range of granite mountains of considerable elevation, running in a south-easterly direction, and considered the central ridge of the colony. Where these granite mountain ranges cross the rivers there are formed cataracts, picturesque in appearance, but offering obstacles to navigation.

A peculiar feature, and one worthy of mention, is the extent of the savannahs which are found between the Demerara and Corentyn rivers, occupying a space of about 14,400 square miles. Schomburgh is of opinion that "the region was once the bed of an inland lake, which broke its barrier, forcing for its waters a path to the Atlantic."

The rivers of British Guiana are four in number, the Essiquibo, Demerara, Berbice, and Corentyn, of which the Essiquibo is the largest, having a north-east direction. It has numerous tributaries, and in its course are several cataracts. Its length is supposed to be about 620 miles; its mouth forms an estuary 20 miles wide, studded with numerous islands, many being under cultivation.

Parallel to it is the Demerara river, navigable for about 75 miles from its mouth, which is nearly a mile-and-a-half wide. It has no important tributaries.

The Berbice, which lies about 75 miles east of the Demerara, is navigable for about 175 miles for small craft, the tide extending to nearly that distance.

The Corentyn, forming the boundary between British

Guiana and the Dutch possessions, has its source about 25 miles east of that of the Essiquibo river.

The climate of British Guiana is very equable ; more temperate than other countries in the same latitude.

The following is the mean monthly temperature for one year, extracted from meteorological observations extending over eleven years in the colony :—

January	79·2
February	79·
March	79·8
April	80·6
May	80·7
June	79·8
July	79·3
August	79·
September	81·5
October	80·
November	80·3
December	79·

According to this table September is the hottest month, but evidencing very slight variation. There are two wet seasons and two dry, constituting the changes of season during the year. The long dry season commences about the end of August, and continues to the end of November. The short dry season commences in the middle of February, and terminates about the middle of April. The regularity of these seasons is, however, often interrupted. In the wet season the rain falls in very heavy showers, but there are frequent intervals of fine sunshine. According to Mr. Sandeman, the average annual rain-fall at Georgetown during seven years varied from 84 to 132 inches.

Except during the rainy season the prevailing wind is the regular trade wind, from the north and north-east. The land, or rainy, wind is westerly, but its continuance is of short duration, and during its prevalence there is usually much sickness.

There are occasional thunder-storms and high winds on changes of season, but hurricanes are unknown. The night is usually much cooler than the day, and the difference is necessarily greater the higher the elevation. When the heat of the air is the greatest, the temperature of the water in the rivers is the lowest, and near sunrise the water is much warmer than the air, at which time the judicious usually take their bath. The reputation in which British Guiana is held usually, from the supposed injurious influence of its climate to Europeans, is certainly not borne out by statistics. On referring to the casualties in the detachment of the 49th Regiment, averaging nearly 170 strong, during the last two years, no death from the effects of climate occurred

nor has any man been invalided,—an immunity, I conceive, not to be found in any other British possession. As an evidence of the erroneous opinions of insalubrity of this station or colony, it has been proved that the duration of life in British Guiana is equal to that of any other country. Montgomery Martin, in his History of the West Indies, gives a comparison of mortality in Rutland (England) and Demerara, in favour of the latter, and indeed statistics corroborate the fact.

Residents appear to enjoy a remarkable immunity from many fatal diseases, such as consumption, influenza, and, until lately, cholera.

The unfavourable impression of the salubrity of this colony doubtless originated from the occasional prevalence of yellow fever in an epidemic form, but these visitations occur happily at long intervals. The first on record appeared in 1819, the next in 1837, and the last in 1856. Much of the virulence of the epidemic in 1837 was attributed to accumulated filth between the wharfs, extending along Water Street, where, from their peculiarily faulty construction, offensive matters were detained. This defect has now been remedied, and a free current of water is permitted to flow between them. In almost all cases of epidemic fever, its virulence and localization can be generally traced to such causes.

The prevailing diseases are dysenteric affections and periodic fever of miasmatic origin, in the treatment of which latter, especially, large doses of quinine and calomel are of essential service.

All the settlements of the colony are situated either on the coast or on the banks of the rivers; and, for their protection from the incursions of the sea, as well as for the purposes of drainage, a number of dams and navigable canals intersect the colony, while, in the cultivated lands, there are embankments on every side, having sluices giving vent to the surface drainage. Some idea of the amount of drainage may be formed by the fact of there being "in the city of Georgetown, besides private drains, thirty-one miles of open trenches, varying in width from two to ten feet, communicating by sixty-two tunnels."

The grandeur, luxuriance, and variety of the vegetation and never failing verdure, in this colony, are not to be equalled by that of any other country, fostered as they are by the genial temperature, humid climate, and rich soil.

The natural productions are diversified and extensive, increased by the introductions from other parts of the world.

The coast is fringed by mangroves and coureda trees, behind which are cultivated slips of land, and, extending into the interior as far as the base of the mountains, are vast savannhas and dense forests. The trees are lofty, towering to a surprising height, their branches and trunks festooned with parasitic plants, and interlaced by bush ropes, which, after climbing to a height, descend again to the earth and take root. The palm trees are of various kinds, and abound in the forest. The capabilities of the colony for affording supplies of timber are great, the varieties of wood being numerous, and unsurpassed in size and durability. Many yield medicinal substances, but their exact extent has been but imperfectly investigated. The three kinds of trees of most use for house and ship-building are the green and purple heart, the wood of which is very close grained and very heavy. The Indians construct canoes from the bark of the purple heart, stripped off, green, after the tree is cut down. The walaba is the next most useful, and is abundant. It is cut up into shingles, and almost universally used as a substitute for slate in roofing. The cocoa-nut tree grows in abundance.

The bully tree is the largest of all, often measuring six feet in diameter, it is used in building. Cedar trees are numerous, and very lofty, reaching a height of eighty feet. To enumerate all the varieties would be unnecessary in this report.

Of medicinal nature, laurel trees are very numerous, from which is obtained the oil, much used here for rheumatism. Quassia Amara, or bitter ash, is met with on the borders of the River Berbice. Ipecacuanha root is found in damp and shaded forest places. Guiana produces also several kinds of sarsaparilla, much used among the Indians.

The forest trees, too, afford resinous juices, medicinally in use here for their healing properties. Balsam copaiva is procured from many species of the genus *copaifera*. The seeds of the dali, a large tree found on the banks of rivers, when subjected to boiling water, produces a substance resembling tallow, and is sometimes used in the preparation of candles.

Dyes are procured in great varieties from many of the trees, used principally by the native Indians.

Guiana produces many grateful fruits of forest growth—pine-apples, guavas, marmalade fruit, and sapodillo; the latter is very like, in appearance and taste, the medlar.

Of the animal kingdom in this colony there are the following—the tiger, which is of very large size; the puma,

or American lion, and many of the cat tribe. There are deer of different species, and the ant-eater, armadillo, sloth, otter, polecat, and opossum. Monkeys are numerous, and often used as food by the Indians. The beauty of the feathered tribes is, I believe, not to be surpassed in any part of the world, as to brilliancy and variety of their plumage. Lizards, alligators, land tortoises, and turtles, abound. The snakes, many of which are poisonous, consist of rattlesnakes, parrot-snakes, and Guiana snakes.

Among the ant species, the most destructive is the white ant; the sting of the red ants is painful, and they are also extremely destructive. Scorpions and centipedes are often met with. There is a very minute insect found in the sand, the chigo, *vulgo* "jigger," which enters the integuments of the hands and feet, and is only discovered after it has deposited its eggs, which produce great irritation. I, however, have never seen any bad effects from its presence in the skin. Mosquitoes abound, and, on the approach of wet weather, produce intense irritation, thrusting their probosces through ordinary clothing.

The present inhabitants of British Guiana consist of Africans, Americans, Chinese, Europeans, and the Aborigines. In 1829, the population was 78,737. On referring to table No. 1, at end of this report, the present population will be seen, showing a vast increase. The Portuguese are the most thriving class, and have succeeded in securing almost the entire trade of small retail shops in both town and country.

The staple products of the colony are sugar, coffee, rum, molasses, charcoal, timber, and cocoa-nuts. Table No. 1 shows the exports of the colony, to which necessarily must be added the articles of local consumption. The increase of exports is necessarily dependent on the extent of import labour, therefore we may fairly calculate that the increasing immigration will carry with it increase of exports. Coffee is but little cultivated, indeed, is insufficient for local use, as the soil yields a larger return from sugar.

Cotton, too, formerly an article of export, is now not cultivated.

There has lately been organized a militia force, consisting of a fine and effective body of men. There is also an admirable police force, composed of blacks and whites.

Georgetown (formerly Statrock) is situated on the east bank of the River Demerara. The streets are wide, but irregular. The houses are all built of wood raised on pillars, having verandahs round them, and usually surrounded by a

garden. This arrangement does not, however, exist in Water Street, the commercial street running close to the shore, where the houses are contiguous, and crowded together, and where business is transacted on the ground-floor. In this street the virulence of epidemics has always been most felt. Canals and trenches traverse almost every street. The Governor's house has been lately repaired, but in position, and in size, does no credit to the colony.

The gaol is situated at the east end of the town. It is not extensive, but is well regulated. The prisoners work for ten hours, and their ordinary diet is 2 lbs. cooked plaintains, ½ lb. cooked meat, or salt fish. They usually leave the jail fatter and heavier than they entered it. All soldiers under sentence of imprisonment for seven days are sent here, and fare the same.

There is an excellent market for meat, vegetables, and fruit. The price of meat is comparatively high. Mutton being 1*s.* 4*d.* and beef and pork 10*d.* a pound. Vegetables and fruit are not expensive. Bread is 4*d.* a pound, and usually very good.

The plantain is the staple vegetable of the country, and forms the chief article of every meal amongst the lower class.

New Amsterdam, the capital of Berbice, is situated at the mouth of the River Berbice. The character of the surrounding country partakes of the same peculiarities as that round Georgetown. The houses are straggling, and are surrounded by gardens. There is a temporary residence for the Governor near the shore. Commerce is neither extensive nor flourishing. A steamer runs between it and Georgetown once a-week.

There is a penal settlement on the Magaruni river, distant from Georgetown about eighty miles. All cases sentenced to long imprisonment are sent there. The buildings are good and commodious, and the internal arrangements admirable. I had an opportunity of visiting it, and was kindly favoured with the dietary (*vide* Table No. 2). The men invariably become heavier after confinement.

Some cases of yellow fever having occurred this year in the colonial hospital, and fearing an epidemic of that disease, I applied to the officer commanding the troops, for permission to select an encamping ground to be prepared for such a contingency. Two sites were proposed, the sand hills, and a place called Belfield. After inspecting and examining the relative advantages of the two localities, we decided that the latter, distant from Georgetown about

fifteen miles, and near the railway terminus, was the most eligible.

Having given a general, but, I fear, imperfect view of the colony, I now propose to describe the military stations, including Demerara and Berbice, the others having been abandoned sometime ago.

The form of the garrison ground at Demerara is triangular, exposed to the free and uninterrupted current of the prevailing trade wind. It has an area of 51 acres. The ground is quite free from brush-wood, and is now little affected by malarious exhalation. The drainage is throughout remarkably good, and sufficient to preserve the ground from humidity; the parade ground, however, being damp, is undergoing tile drainage, a system which will, I incline to think, be unsuccessful.

The position of the Military Hospital abuts nearly on the sea wall—a situation that could not have been equalled, receiving as it does the full influence of the breeze. It is situated on an area of ground of four acres in extent, running east and west, and the Hospital consists of two wings, of two stories each, connected by a gallery. It is built of the green heart tree, and raised about ten feet from the ground. The space below is not used for any purpose. The building is capable of containing 148 patients. It is divided into eight wards, two above and two below in each wing. The wards in each storey are not entirely separated by partitions, but have an open and free communication. There is a wide gallery, closed by jalousies, round the whole building above and below. At the south-east corner of each gallery is a water-closet. The whole building, being admirably constructed, admits of the freest ventilation, and is perfectly protected from rain. The wards are very lofty and well proportioned for the present distribution of patients. I regret to say the east wing is occupied by troops, causing considerable inconvenience in maintaining hospital discipline. The walls of the Hospital are painted stone-colour, and the floors are kept clean and bright by dry scrubbing and bees-wax. The present place for performing personal ablution is at the east end of the north gallery, where basins, &c., are provided. The galleries are ten feet wide, and those patients who are allowed to be out of bed dine there.

The clothing of the patients consists of a jacket and trousers, of woollen material, which I invariably cause to be used instead of the cotton, from the humid nature of this climate. Since my arrival I have had constructed bed-side

tables between the beds, affording great increase of comfort and convenience. There is a bath-room attached to the east wing, but its distance precludes the patients in the west wing from taking advantage of it.

There are two iron tanks under the adjoining ends of each wing, for a description of which, and their capacity, *vide* Table No. 6. The water is good and sufficient. Slipper baths are used, and every patient coming into hospital is ordered one.

Running at right angles with the outer and south corner of each wing is a covered passage leading to the kitchens, which are lofty and well ventilated.

Immediately in rear of the kitchens are the latrines, constructed over drains, and they are purified by flushing. There is a want of urinals, and ablution rooms in this establishment, which I have represented, also of ash-pits. The latter are in course of erection. In the same line with the kitchen, and running in similar direction, distant about twenty yards, is the dead-house, containing two compartments, furnished with every requisite.

About twenty yards from the dead-house, in the same line, but facing north and south, is the building appropriated for pack and provision stores; also the hospital serjeant's quarters. A building, corresponding in position, on the east side is appropriated for a surgery, Principal Medical Officer's office, and a room for the use of the medical officers.

At the extreme end of the hospital ground, and placed at its entrance, is the room for the hospital guard. The building is raised from the ground, and constructed for four men, it contains 1,915 cubic feet of space.

On a line with the main building of the hospital, some 500 yards to the east, is situated the Royal Engineer's offices, and at a little distance further to the east again is the quarter occupied by the officer commanding the troops. The latter is like the others, raised from the ground; it is commodious, and in a very healthy position.

Extending for about 300 yards backwards, is a tract of uncultivated ground, at the extremity of which is the officers' cemetery. The main road bounds this, running east and west, in a straight line, at the western end of which is the Fort Adjutant's quarters, and at the eastern a bridge, forming the boundary of the garrison ground there. Further to the south, and on the other side of the road, are situated the officers' Barracks. They lie east and west, and are composed of two wings, two stories high, raised on brick pillars, six feet from the ground: the rooms

are lofty, well ventilated, and protected from the weather: they are surrounded by a verandah.

The space beneath these quarters is occupied by the officers as a stable, there being no other in the garrison. This I conceive most objectionable. Parallel to the outer extremity of each wing are two tanks, one on each side; farther outwards, again, are servants' quarters. Running at right angles with the latter are the officers' kitchens, airy and well ventilated.

Immediately in rear of these buildings, running backwards, and to the west, is the parade-ground, having an area of six acres. It is square in form, and now undergoing tile-draining. In rear, again, of this ground are the soldiers' barracks, "Eve Leary." The barrack-yard is nearly square, having an area of five acres. The guard-room at the north entrance is commodious, and sufficient for the guard, eight in number: it is raised from the ground six feet, and contains 7,948 cubic feet of space.

Placed opposite to the guard-room is an old building, formerly used as cells, but much too close and confined for present occupation.

Distant from the entrance-gate, running east and west, are the Barracks for the men, consisting of two wings and two stories, raised eight feet from the ground by brick pillars. Each storey has a verandah running round the building, under the same roof. The rooms are lofty, well ventilated, and protected from the weather. On a reference to Tables Nos. 3 and 4, the authorized occupation and present distribution will be seen. Beneath the west wing is a small inclosed space, formerly used for keeping gun-carriages.

At the extreme ends of each building, running at right angles, separated by a space of ten yards, are the urinals, the east end one newly-repaired; that on the west side about to be so. On the same line, but more to the rear, are the latrines. Attention is paid to see them periodically cleansed, and lime thrown down them. Further on, at the west side, is the women's wash-house or shed, and drying ground. On the opposite or east side are some condemned buildings, also the school-room and Quartermaster's store. At the end of the barrack-yard, and facing the buildings, is the Staff-Serjeants' quarters, of two stories, but nearly resting on the ground. In the upper rooms the Staff-Serjeants are quartered. The rooms are airy and well ventilated, the west and lower room is occupied as a canteen, is sufficiently large, and the articles sold are cheap and of the best quality. The

other lower rooms are occupied as shoemakers' shop, store-rooms, and one as a military labourers' room.

In rear of this building is the cook-house, which borders on the south limits of the Government grounds, separated from colonial ground by a deep trench and rail. In front of the cook-house, and somewhat in rear of the Staff-Serjeants' quarters, and on west side of the barrack-yard, is the bath-house for officers and men, now in course of completion, and the artesian well; for capacities of which bath, *vide* Table No. 5.

The wants in Eve Leary Barracks are—1st, a room for prisoners, apart from the guard-room; 2nd, an ablution-room, of which none now exists, but is proposed in estimate for 1861; 3rd, better accomodation for women's wash-house.

At the south end of the parade-ground are situated the garrison cells; a building elevated from the ground three feet by solid masonry, containing six cells, giving 690 cubic feet per man. The cells themselves are well ventilated and fitted up, but there is requirement for a free current of air below, which want I have represented, and I believe is to be remedied.

Parallel to the cells, and distanced about ten yards, is the garrison bakery, a square well sized building, attached to it are two good tanks.

The square portion of ground forming the centre of the triangle of Ordnance land is Kingstown Ward. It is subdivided into four streets, running parallel to the river. In the south-west corner of Kingstown, adjoining the Cumingsburg Canal, is a slip of ordnance land 53 yards broad and 310 long, extending to and having an outlet on the principal street in Kingstown. The Superintendent Medical Officer's quarters, now occupied by the Resident Royal Engineer, are placed at the river side of this site, and the Kingstown Barracks on the land extremity. The entrance to the Barrack inclosure is from the road which forms the north boundary of the colonial land. The Barrack runs east and west, is of two stories, raised like the other buildings from the ground on brick pillars, standing in an area of three acres of land. Each storey forms one room, surrounded by a broad closed gallery. The rooms are lofty and well ventilated.

Opposite the west side of the Barracks is the guard-room, raised from the ground, and having two cells attached to its south end. Attached to the Barracks are men's and women's latrines, over trenches, and at the east corner of the building is a large tank in good order.

Fort Frederick, which forms the north-east side of the

Ordnance ground, being between the sea on the east and the river on the west, is protected by the sea-wall from encroachments which have for some time been progressing. In this fort are placed the ordnance stores, and the storekeeper's quarter. This quarter is one of the best in the Command; raised from the ground by brick pillars ten feet high. The rooms are unusually lofty, and well ventilated.

The Drainage of this Station is very good, each inclosure being surrounded by a deep trench, emptying itself into a canal communicating with the sea, regulated as to the egress and ingress of water by the tide and by sluices. Flushing of these drains and trenches is performed when occasion requires. The sea has made inroads since 1846, but the substantial sea-wall, now in course of formation, will prove an effectual barrier to its further encroachments. On the north-east extremity of the ordnance land the sea occasionally breaks through the temporary dams and floods the adjacent country during the spring tides, but I have not witnessed any increase of disease during the evaporation of this water from the land.

The position of the colonial Hospital has been well selected, but is exposed more to malarious influence than the garrison Hospital.

Before concluding my description of the Station, I will offer a few remarks, suggestive of increased comfort to the soldiers, and tending to afford better protection against the influence of this climate. With regard to "*dress*," no definite order is extant as to the description of shirts or socks for use amongst the troops. They usually wear cotton, with commonly a thin flannel shirt beneath, purchased by themselves, but the use of which is not imperative. I would recommend the general and compulsory use of flannel shirts, instead of cotton or linen, and of worsted socks. As evidence of the necessity for such precautions here, I would observe that the poorest civilian, however ragged his outer clothing may be, never fails to wear a flannel shirt, and the evidence of all the civil practitioners is corroborative of the value of this under clothing. The red tunic is much too thick, and the lining, which is thick serge, should be of thin flannel.

Further, I cannot but believe that the change, frequently occurring several times during the day, from the thin-lined regulation shell-jacket to the before-mentioned warmly-lined tunic, must, sooner or later, be attended with injurious results.

As a prophylactic measure, I would urge the advisa-

bility of administering quinine to the men, more particularly during the rainy seasons and the prevalence of an epidemic, and providing, during the latter, a more liberal diet with regard to the white troops, restoring the beer-money, and enforcing its expenditure in good beer or rum.

Another point worthy of consideration, I conceive, is the giving instruction to the most intelligent of the non-commissioned officers on the primary symptoms of yellow fever, when an epidemic has been declared to exist, with a view of having every man, in the first stage of the disease, brought to the Medical Officer. I have it on the evidence of the medical practitioners here, and which is fully corroborated by Government statistics, that mortality was very much increased by the fact of the primary stage having passed before the patient was brought to the notice of the practitioner; and such is the characteristic of the soldier, more particularly when suffering from the superadded effects of a panic, that he puts off by every means his removal to hospital, thereby rendering the disease more difficult to combat.

I proposed some time since that the men should be provided with baked meat twice a-week, a proposition which met the approval of his Excellency the Commander of the Forces, on his late inspection visit here, and, on a a reference to the Resident Royal Engineer, he informed me that ovens could be readily constructed at a very small expense. The incessant boiled beef and soup, it may readily be believed, would gladly be exchanged for an occasional pie or piece of roast beef.

The patients in hospital have at present no ground to exercise on except the front of the building or the space between it and the sea-wall, which is swampy and covered with grass. In wet weather this is a perfect swamp. I propose that a certain portion be paved, or covered with gravel and shells, and railed in, for the purpose.

Much attention has been given at home, and in some colonies, to affording amusements for the men, but at this station there are none, where, of all others, they are most required. Visits to grog-shops naturally become more frequent, and the keepers of these are not slow in taking advantage of the omission, and in providing for excitement and sensual amusement, inevitably ending in crime. I feel justified, from all I see and hear, in urging the authorities to make some provisions for the occupation and amusement of the men, being convinced, from previous experience, that at least two-thirds of them would readily take advantage of the same. There are capabilities of erecting

and forming a ball-court, cricket-ground, quoit-ground, &c., at very small expense. I trust this matter may receive its full share of consideration on the part of the authorities.

The other Station of the Command is Fort Canji, Berbice, one of the oldest military stations in the colony, situated on the right bank of the River Berbice, about five miles from the sea, and in an angle formed by the confluence of the Canji and Berbice rivers. It was much more flourishing before the abolition of slave-labour, and space now covered with brush-wood was once highly cultivated.

This fort, or station, was at one time exceedingly unhealthy, and, in consequence, the troops were withdrawn and the barracks sold. On a threatened outbreak, however, they were again sent there, and the buildings repaired.

The area of Fort Canji is 99 acres, surrounded by swamp and brush-wood. It is situated about half-a-mile north of the town, with which it communicates by a long straight road.

The buildings are constructed much on the same principle as those of Demerara, being of wood, and similarly raised from the ground on brick pillars. The officers' quarters are the furthest distant from the river, consisting of two storeys, having a gallery all round, not closed. The rooms of these quarters are commodious and well ventilated, and in good repair. In rear is the kitchen, behind which is the latrine, the former limited in extent and out of repair. On the opposite side of a plot of trenched grass ground, and facing the officers' barracks, is an old building, formerly used as a Commissariat store, and very lately as the hospital, but now appropriated as a quarter for the married people not accommodated in barracks. It consists of two stories, having an inclosed space below occupied by barrack-stores, except one apartment used as a school-room. The house is ill-ventilated; there is no latrine or ablution-room attached; the windows are not jalousied, and have no protection from the sun. On my first visit, this house was used as a hospital, but I requested that every effort should be made to complete the new one now in use.

The present Hospital is situated a little to the south of the last-mentioned building, supported on piles six feet high; it is composed of two stories, running north and south, having two wards below, capable of accommodating four patients each, and one ward above also for four patients, together with surgery and serjeant's room.

The windows of the Hospital as yet have no jalousies, but they are to be put up immediately. The kitchen in rear, or nearer the river, is sufficiently large and well fitted up.

The area of the Hospital ground is small, surrounded by a palisade.

The present Strength of the detachment at this Station is—

4 Officers,
5 Serjeants,
5 Corporals,
107 Privates.—Black Troops.

The men's Barrack is situated about eighty yards riverward from the Hospital, running at right angles to it. It was formerly a hospital, when the garrison was much larger.

The building is of two stories, raised from the ground about eight feet, having one large room in each storey. Each room is 63 feet long by 21 wide. There are about 14 inches between each bed. The men usually dine in the space below the building. There is no ablution room or other convenience for personal cleanliness. The men state they usually wash in the Canji Creek. I am not aware whether any means are proposed to remedy this deficiency. There is no regular bathing parade, but the men appear to avail themselves of the contiguity to the creek.

The guard-house is situated at the entrance of the Ordnance land, that portion nearest the town. It is large and airy and sufficient in size for the usual guard of six men, a serjeant, and corporal. At the back of this, and under the same roof, are two rooms for prisoners, and well adapted for the purpose. The cells are three in number, contiguous, and under the same roof, situated about twenty yards from the guard-room. They are small and badly ventilated, and altogether unsuited for occupation for any length of time.

Prisoners, for any long period of confinement, are sent to the civil prison.

On the town side of the barracks, between the latter and the outer trench, is the rifle ground, extending from the rear of the officers' quarters to the river. In wet weather it is swampy. I may here remark that the detachments of black troops are periodicaly changed for rifle practice, which I apprehend is the only reason why this station is still occupied.

On my first inspection the garrison ground was covered with weeds and rank vegetation, and in many parts there were gardens inclosed by fences of considerable height. After a strong representation on the probable ill effects of such being allowed to continue they were removed, and the surface cleared of all rank vegetation. Since which, musquitoes, then so intolerable as to require fires to be lit in the evening outside the buildings, have now almost entirely disappeared.

The Ordnance ground is encircled by a ring road, within which is a deep trench. The land in the garrison is well drained by side and cross drains.

No. 1.

POPULATION of British Guiana in 1859.

	Whites.	Coloured.	Aborigines.	Aliens, not included in foregoing.	Total.
Demerara	8,857	10,570	4,830	51,516	75,773
Essequibo	1,758	1,845	2,774	18,548	24,925
Berbice	949	2,339	2,099	21,646	27,033
Total	11,564	14,754	9,703	91,710	127,731

Total Population, 127,731.

Immigrants.

Coolies	13,780
Chinese	233
Portuguese	1,608
Africans	890

These are only under indenture to estates.

EXPORTS from British Guiana, 1859.

Sugar	36,994 hogsheads.
Rum	13,887 puncheons.
Molasses	2,350 puncheons.
Coffee	1,397 barrels.
Charcoal	12,774 barrels.
Timber	153,396 cubic feet.
Shingles (Wallaba)	1,189,200.
Cocoa nuts	190,536.

No. 2.

TABLE of Dietary at Penal Settlement for Convicts at Work and in Hospital.

Full Diet, and Convicts' Diet out of Hospital.	In Hospital. Half Diet.	In Hospital. Spoon Diet.
For Breakfast: 1 lb. 7 oz. plantains, or 12 oz. biscuit or bread ¼ lb. salt fish. Same for dinner. Those who are at extra work have a pint of soup made of vegetables, and pork or fish, and one gill of molasses. All out-door convicts have this diet, and some in hospital.	Breakfast: 5 oz. soft bread or biscuit. ½ lb. fish. 1 oz. sugar. Dinner: 10 oz. bread or biscuit. 1 oz. sugar; or 4 oz. fish or pork. ½ lb. barley. 4 oz. vegetables.	½ lb. sago or arrow-root. 1 oz. sugar. or, 2 oz. tea. 1 oz. sugar. Biscuit in each case, ¼ lb.

In addition to the ordinary diet, the surgeon has the power of ordering anything extra, such as tins of soup, fowls, brandy, wine.

No. 3.

STRENGTH of Troops.

Corps.	Officers.	Serjeants.	Drummers.	Privates.	Women.	Children.	Nights in Bed. Non-com. Officers.	Nights in Bed. Drummers.	Nights in Bed. Privates.	Remarks.
49th Regiment	7	7	3	124	10	25	6	..	6	
3rd West India Regiment	13	15	5	301	25	16	6	..	8	
Military Labourers ..	..	1	..	17	1	..	..	..	..	

Distribution.

Description of Building.	49th Regiment. Non-com. Officers.	Drummers.	Privates.	Women.	Children.	3rd West India Regiment. Non-com. Officers.	Drummers.	Privates.	Women.	Children.	Military Labourers Non-com. Officers.	Privates.
Eastern Wing Hospital:												
Upper room	4	2	27	..	..	..	..	..	..	..	..	..
Lower room	3	1	26	..	..	..	..	..	..	..	..	..
Eve Leary Barracks:												
East wing { Upper room	..	..	..	..	..	5	1	47	1	..	..	..
East wing { Lower room	..	..	..	..	..	5	..	56	3	..	..	..
West wing { Upper room	..	..	1	1	..	5	2	34	2	2	..	..
West wing { Lower room	5	2	51	..	..	..	..	..	..	..	..	..
Staff Serjeants' Quarters:												
Upper room	2	..	4	6	16	1	..	..	1	1	..	..
Lower room	..	..	..	..	..	..	..	..	..	..	2	14
Kingston Barracks:												
Upper room .. / Lower room ..	..	..	..	..	..	2	..	15	17	21	..	..
Detached Quarters:												
Eve Leary	..	..	4	4	5	2	..	10	2	1	..	..
Hosp. Officers' Quarters	1	..	3	..	..	..	..	..	..	..	..	..
Berbice:												
Upper room .. / Lower room ..	..	..	..	..	..	11	2	106	19	18	..	..

No. 4.

RETURN showing the authorized occupation of Barrack-rooms, with cubic feet per man at that ratio.

Description.	Rooms.		Total.	Cubic feet per Man.		Remarks.
	Upper.	Lower.		Upper.	Lower.	
East wing, Hospital ..	42	32	74	851	805	
Eve Leary, East wing ..	74	74	148	650	624	Without including verandah.
„ West wing..	74	74	148	650	624	
Detached Quarters ..	..	..	Nil.	..	..	
Staff-Serjeants' Quarters .	7	..	7	8,874	..	Cubic feet in each room.
Kingston Barracks ..	23	27	50	546	556	
Berbice	40	40	80	1,069	1,095	Enclosed. This includes the gallery all round, the side walls of room being only boarded halfway up their height.

No. 5.

Memo.

The soldiers' bath contains 1,776 gallons of water; it takes 8½ hours to fill, and 1½ hour to empty. The officers' bath contains 405 gallons of water; it takes 3¾ hours to fill, and 15 minutes to empty.

When the baths are full, the supply pipes remain open, so that the water be kept pure by a stream constantly passing through it.

As often as the baths require cleaning, the water is let off at four o'clock in the evening, and let on again when the cleaning process is completed, that the baths may be ready for use by six o'clock next morning.

The soldiers' bath is 9 feet 6 inches long, 9 feet wide, and 3 feet 4 inches deep.

The officers' bath is 6 feet 6 inches long, 3 feet 9 inches wide, and 2 feet 8½ inches deep.

The time taken to fill these baths from the artesian well varies considerably, perhaps from the effect of the tides.

No. 6.

TABLE of Capacity of all Tanks in the Garrison of Demerara.

No.	Situation.	Capacity in gallons.
1	Kingston Barracks	43,263
2	Do. Officers' Quarters	4,900
3	Fort William-Frederick Military Storekeeper's Quarters	10,790
4	Do. Military Storehouse	6,984
5	Commissariat Store	10,005
6	Fort-Adjutant's Quarters	3,590
7	Military Store Clerk's Quarters	4,156
8	Military Hospital	10,005
9	do.	4,273
10	do. (under Hospital)	3,467
11	do. do.	3,467
12	do.	10,005
13	do.	4,273
14	Engineer Yard	8,380
15	do. Office	4,156
16	Resident Royal Engineer's Quarters (now Commandant)	3,240
17	Officers' Quarters, West wing, Eve Leary	3,588
18	do. do. do.	3,588
19	do. do. do.	5,070
20	do. East wing do.	4,273
21	do. do. do.	4,273
22	do. do. do.	3,588
23	Mess Kitchen do. do.	3,588
24	Commissariat Bakery	4,273
25	do. do.	3,588
26	Garrison Cells	4,273
27	Principal Medical Officer's Quarters (late C.W's. Quarters)	5,070
28	Soldiers' Barracks, West wing, Eve Leary)	8,683
29	do. do.	10,005
30	Women's Wash-house do.	26,081
31	Soldiers' Cook-house do.	8,310
32	Staff-Serjeant's Quarters do.	29,808
33	Soldiers' Barracks, East Wing do.	10,005
34	do. do. do.	10,005
	Total	283,023

Abstract of the Annual Medical Report of the Royal Engineers, stationed in British Columbia, for the Year ending 31st December, 1859; with Table of Meteorological Observations taken during the Year ending 31st May, 1860.

By J. V. SEDDALL, M.D., *Assistant Staff Surgeon.*

The expedition formed for special service in the colony of British Columbia was organized in the month of August 1858, and consisted of the following troops, viz.—150 non-commissioned officers and sappers of Royal Engineers, 1 serjeant and 1 corporal of Royal Artillery, 1 serjeant and 1 corporal of 15th Hussars, 1 hospital orderly Medical Staff Corps, 1 colonel, 3 captains, and 2 lieutenants of Royal Engineers, and 1 Staff Assistant-Surgeon.

Two detachments, consisting of 2 captains and 32 men, left England in September, 1858, arriving, *viâ* Panama, in British Columbia in December, 1858.

The head-quarters of the Columbian detachment, consisting of 1 captain, 2 subalterns, 1 staff assistant-surgeon, 118 non-commissioned officers and men, 31 women, and 34 children, embarked at Gravesend on the 9th of October, 1858, on board the transport ship "Thames City," and reached Vancouver Island, *viâ* Cape Horn, after an exceedingly prosperous voyage of six months and three days, including a fortnight's stay at the Falkland Islands, and four days' stay at Valparaiso.

During the voyage, the health of the party, generally, was excellent. No sickness whatever prevailed among the men, women, or children. Ten births took place during the voyage; one death (from phthisis pulmonalis) occurred amongst the women, and two deaths amongst the children.

The last detachment, consisting of two non-commissioned officers and two sappers of Royal Engineers, and one corporal of Royal Artillery, with their wives and families, reached Vancouver Island, *viâ* Cape Horn, in the barque "Euphrates," laden with Government stores, on the 25th of June, 1859.

The first step taken by Colonel Moodie, Chief Commissioner of Lands and Works, on his arrival in the colony of

British Columbia, was to select a site for the future capital, and, to this end, he decided on establishing a town in a very suitable locality, on the right bank of the Fraser river, about seventeen miles from its mouth, which was first called Queenborough, but to which the name of New Westminster was subsequently given.

As soon as the site of the town was decided on, the detachment of Royal Engineers which had arrived, *vid* Panama, (and which had since arrival been quartered at Langley, a Hudson's Bay settlement on the Fraser river, fifteen miles from New Westminster) was removed to the locality, and soon became occupied in clearing the land (which at that time was a dense forest, covered with thick brush), in surveying the ground allotted for the town, and measuring and laying out town lots, according to the plan drawn up by Colonel Moody. The services of a number of civilian artificers were engaged to assist in laying out the town, and contracts were given out for the erection of a custom-house, custom-house wharf, treasury, court-house, &c.

The portion of ground reserved by Colonel Moody as the site of the camp, for the occupation of the troops, is situated on the banks of the Fraser about a mile and a half north of the commercial portion of the town, and is admirably fitted for the purpose for which it has been selected.

The Royal Engineer camp faces towards the east, and is situated on a sloping bank which, on the first arrival of the detachment, was a dense forest of pine-trees, spruce, cedars, hemlock, maple, &c., with a thick underbush of roses, thorns, wild gooseberries, currants, raspberries, cherries, &c.

The ground inclines gently backwards, from the edge of the water, into the forest behind, and pure spring water may be procured in almost any part of the camp by digging a few feet for it, although the surface, which has been cleared of vegetable deposit, is perfectly dry owing to the sandy nature of the soil, and its inclined position affording natural drainage.

The general character of the soil about New Westminster and its vicinity is sand and gravel, interspersed with clay, which, in some parts, is so mixed with gravel and indurated, as to give it the appearance of a conglomerate.

The latitude of the camp at New Westminster is 49° 12′ north, and its longitude 122° 49′ west. The observatory is about fity-four feet above the level of the sea.

The Fraser river runs nearly north and south at New Westminster and is, at this point, little more than three quarters of a mile in width.

In a sanitary point of view, both the town and camp of New Westminster may be considered as most eligibly situated. No marshy ground whatever exists in their vicinity, and, although some portions of the south part of the town are overflowed by the Fraser river at its highest rise in summer, they soon dry up, under the influence of a few days' sun and breeze, shortly after the river commences to fall.

During the summer months a most refreshing sea-breeze from the Gulf of Georgia generally prevails for a couple of hours before and after noon, which, however, does not reach higher than two or three miles up the river. This breeze is highly beneficial to this locality and tends considerably to render it one of the most salubrious stations on the North Pacific Coast.

On arrival of the head-quarters in the transport-ship "Thames City" at Esquimalt, Vancouver Island, the whole force and the baggage were conveyed by detachments up the Fraser river in a steamer engaged for the purpose.

As no accommodation had been provided at New Westminster for the women and children, they were sent on to Langley, where a commodious barrack had been erected, and where they took up their residence until the completion of the barracks and married people's quarters at the former place.

About the middle of April a detachment of Royal Marines which had, a short time previously, arrived from China, consisting of 133 men and 6 officers, was moved to New Westminster, and encamped on an elevated bank of the river on the right of, and close to, the Royal Engineer camp. Their duties were principally confined to making roads, building bridges, clearing the forest, and assisting to lay out the town. They were stationed in British Columbia till the 1st of August, when they were removed to Victoria, on account of the San Juan difficulty, which arose at that time between the American and British Governments.

For upwards of six months after their arrival in the colony the troops were encamped under canvas, some in bell-tents and some in marquees; the tents were properly trenched all round, and each man was provided with a camp sheet.

The hospital accommodation consisted of three tents, two marquees for the sick, and one for a surgery and store tent; the floors were boarded, and every attention was paid to the comfort and requirements of the patients.

In June, the married people's quarters were completed, and the women and children were removed from Langley to

New Westminster to occupy them. They consist of nine separate wooden blocks or houses, each containing three rooms, measuring 18 feet by 20, with a common verandah in front, facing the river. Each room is occupied by one family, and every facility has been afforded to the inmates to enable them to construct partitions, and render their rooms otherwise comfortable. Some have erected kitchens and outhouses, and most have papered and partitioned off their rooms. The blocks are situated in a row, on the slope of the hill to the rear of the present camp, sufficient space of ground having been left between them to admit of each family having a good sized garden, for the purpose of growing vegetables. The rooms are well lighted, properly ventilated, and furnished with fire places built of bricks, well adapted for cooking and other purposes.

The single men have been accommodated in a capacious building, intended ultimately for a church, and calculated to accommodate sixty or seventy men. It is well ventilated, and heated by means of large iron stoves.

The permanent hospital was commenced in September, and completed in December. It is most eligibly situated in a sanitary point of view, commanding a fine view of the Fraser, and fully exposed to the refreshing sea breezes constantly blowing up the river.

The wards, two in number, and calculated to contain eight beds each, are 30 feet long, 20 feet broad, and 17 feet high up to the ceiling, the height up to the square of the walls being 12 feet. The cubic contents of each ward are about 8,750 feet, thus allowing nearly 1,100 cubic feet of space for each patient. The wards are provided with open fire-places, and are well ventilated; light is admitted by means of a window, with swinging sashes at the side, placed so high above the verandah as to allow access to the direct rays of the sun.

The surgery and hospital serjeant's room are well lighted by means of bow windows. The surgery is properly fitted up, and a bath room is likewise provided, with everything requisite to facilitate cleanliness on the part of the patients.

The kitchen and latrines are detached from the main building, and are connected with it by means of a covered-way, divided down the centre by a partition, which completely shuts off the one from the other. The verandah which surrounds the hospital is a valuable addition to the building, and adds greatly to the comfort of the patients, enabling them to take exercise in almost any weather.

The officers of the detachment were under canvas until November, when temporary quarters were provided for the winter, no permanent quarters having as yet been constructed for the single officers.

The following is the scale of rations, issued free to the men, women, and children of the detachment :—

Daily.—Fresh meat, 1½ lb., or salt meat, 1¼ lb. ; bread, 1¼ lb., or biscuit 1¼ lb.; vegetables, 1 lb.; coffee or chocolate, ½ oz., tea, ¼ oz., or double of either alone; sugar, 2 oz.; tobacco, ½ oz.; soap, ½ oz.; salt, ½ oz.

Weekly.—Mustard, ½ oz.; pepper, ½ oz.; vinegar, ½ pint; at times cranberries, currants, rice, &c., in addition; peas or beans sometimes instead of vegetables, if necessary.

Women.—Three-quarters of men's rations, in respect of meat and bread, but the same in groceries.

Children.—Half men's rations. Children under one year of age no rations.

No free ration of spirit or malt liquor is allowed to the men at New Westminster; a supply of good beer or porter is, however, kept on hand by the Acting Quartermaster-Serjeant, and sold in limited quantity to the men at cost price. Parties working on roads and trails in the interior, where beer is not procurable, are, however, allowed a daily ration of rum.

In addition to the vegetables allowed as a ration, the men of the detachment were, from time to time, supplied with fresh vegetables from the camp garden, in which were sown the seeds furnished amongst the medical stores.

The clothing supplied to the detachment as a working dress is admirably adapted for the purpose, and well suited to the climate. It consists of a short blue cloth jacket, with red facings, moleskin trowsers, felt hat, red flannel shirt, and long boots. In addition to this, each man has been supplied with a cloth capôte with hood, a woollen scarf, a pair of warm gloves, and a complete suit of waterproof clothing for winter wear.

The duties and employments of the detachment have been, on the whole, of a very salutary nature, being confined principally to clearing land, felling timber, erecting wooden buildings and storehouses, constructing bridges, laying out the town of New Westminster, surveying suburban and rural lots, making roads, &c.

Several small detachments have been despatched throughout the country during the year.

In June, Lieut. Palmer, R.E., with two Sappers, returned from the upper country, having visited the mining districts,

and carefully surveyed and inspected the trail which connects Port Douglas with the diggings on the Fraser and Bridge rivers, known as the Harrison and Lillouet trail. Having reported that, in consequence of the non-existence of a safe and proper means of communication between the Lower and Upper Fraser, the miners were suffering from great scarcity of provisions, which ultimately compelled them to leave the country altogether, and having ascertained that the nature of the land between Port Douglas and the Upper Fraser would easily admit of the construction of a good waggon-road, which would greatly tend to open up the country, and thus advance the interests of the colony, the Government authorities decided on employing a party of Sappers and Royal Marines to effect this purpose. Accordingly, on the 21st of June, a detachment of 1 captain and 50 non-commissioned officers and sappers of Royal Engineers, and 1 captain, 1 subaltern, and 50 Royal Marines, accompanied by myself in medical charge, left New Westminster by steamer, arriving at Port Douglas the following day; Assistant-Surgeon Mitchell, R.N., having been left in medical charge of the Royal Engineers at head-quarters.

Port Douglas is a town recently established on Lake Douglas, near the head of Harrison lake, which latter empties itself by means of the Harrison river into the Fraser. The distance between New Westminster and the mouth of Harrison river is nearly 60 miles. The Harrison is 10 miles long, and Harrison lake is 30 miles long, averaging in width about three-quarters of a mile. At the head of Harrison lake, a small channel at its left corner opens into Lake Douglas. This is a small sheet of water about a mile and a-half long, and one-third of a mile broad, and almost entirely inclosed by high mountains, densely wooded with pines and cedar trees. The town of Port Douglas is situated at the head of its lake, in a valley which slopes gently backwards, joining a series of valleys running nearly parallel to the Lillouet river, and opening out into the Lillouet lake. The Lillouet river is thirty-six miles long, running from Lillouet lake in an easterly direction, and emptying itself into Harrison lake at its head.

The only communication between Port Douglas and the mining districts on the Upper Fraser has hitherto been by a mule-trail, which was constructed last autumn by a party of civilians. This, however, is very imperfect in many respects, being in some parts carried over very steep mountains, when it might have been made to follow the natural level at the

bottom of the valleys, whilst in other parts it is rendered almost impassable from the rocky nature of the soil, and the rough state in which it has been left. The object of the present working-party is to construct a good serviceable waggon-road from Port Douglas to the Upper Fraser, widening out such parts of the trail as are approved of by the Officers of Engineers, and making such deviations and alterations as will conduce to shorten the road and facilitate its speedy completion.

The length of the waggon-road from Port Douglas to Lake Lillouet will be nearly thirty-six miles, and will run almost the whole way parallel with the Lillouet river. The Lillouet lake, sixteen miles long, will then be crossed by vessels, and the road continued to Anderson lake, a distance of twenty-four miles. Communication with the Upper Fraser will then be established by water along Lake Anderson, sixteen miles long, and Lake Seaton, eighteen miles in length, a small land-distance of a mile and a quarter dividing the two lakes; the remaining distance between the head of Lake Seaton and the Fraser river being four miles of flat arable prairie land.

The two camps of Engineers and Marines are four miles apart, and the two parties are at present working towards each other; when they meet, the camps will be shifted further on the road.

On the 25th June, I accompanied Colonel Moody, R.E., on a visit to a hot spring, twenty-five miles from Port Douglas. It is situated on the bank of the Lillouet river, near the line of the waggon-road. The water rushes out from beneath a large rock, at the foot of a steep mountain, by two small springs. I ascertained its temperature, at the mouth of the spring, to be 130° Fahrenheit, and it emits a very powerful odour of sulphur and sulphuretted hydrogen. On analysis, I found it to be saline, containing neutral salts, principally the sulphate of soda, with small quantities of chloride of sodium. Taken internally, it has a slightly purgative effect. The use of the hot-bath, however, is likely to be attended with beneficial results in cutaneous diseases, and in those cases requiring determination to the skin. We expect shortly to be encamped in the vicinity of the spring, when I shall take the opportunity of watching its effects on the system, and ascertaining its medicinal qualities more thoroughly.

Every attention has been paid to the issue of good wholesome rations to the parties working on roads, &c. Fresh meat and vegetables were issued, on an average, two or three

days a-week, and a daily ration of half-a-gill of rum was allowed to each man.

Besides the working party on the Douglas road, several small parties have been despatched, from time to time, to construct trails, survey land, &c., at Langley, Hope, Yale, and Burrard's Inlet. A detachment of one officer and 14 men of Royal Engineers proceeded on special duty to the Island of San Juan in August, where they did duty for three weeks on board Her Majesty's ship "Tribune," anchored off the disputed island.

The condition of the detachment, as regards its internal economy, may be said to be highly satisfactory; the conduct of the men has ever since their arrival in the colony been on the whole excellent; very little drunkenness prevails amongst them, notwithstanding the strong inducements and temptations held out by the numerous American liquor establishments in the town of New Westminster.

The nature of their duties affords them healthy exercise during the day, whilst various intellectual amusements are provided for those who wish to profit by them in the evening. An excellent theatre has been erected at the private expense of the men, which is likewise used as a club-room, news-room, and reading-room. They also possess the advantage of an extensive library containing the best standard works of every description, and are provided with chess-boards, draught and back gammon-boards, &c. Instrumental music and glee-singing are a source of much recreation to those who are fond of music, and every assistance is rendered by the Colonel commanding, and the other officers of the detachment, to encourage the promotion of intellectual amusements and healthy occupations amongst the men.

The original strength of the detachment on leaving England was 155 non-commissioned officers and men, and 7 officers; 36 women and 42 children. The present strength of the men is 149, 5 having deserted and one man having been accidentally drowned; that of the women is 34, one having died on the voyage out of phthisis pulmonalis, and one having committed suicide; the present strength of the children is 51, 15 births and 6 deaths having occurred since leaving England. The strength of the officers of the detachment continues the same.

The health of the whole detachment has, without exception, been excellent throughout the year; there has been no sickness or epidemic of any description amongst either men, women, or children. The average daily sick in hospital has

been between 2 and 3, and the cases under treatment have been, generally speaking, of a very trifling character.

Under the head of catarrhs we have had 14 admissions during the year, principally consisting of slight colds, contracted during the autumn, and which speedily yielded to treatment. We have had 8 cases of simple diarrhœa, averaging a duration of four days each, and brought on by drinking cold water in excess whilst road-making in hot weather.

Phlegmons and contusions have been most numerous, due to slight injuries received whilst felling timber and clearing land. There has been very little venereal disease in the detachment; 6 cases of simple chancre and 2 cases of gonorrhœa having been admitted during the year.

The cases of cynanche tonsillaris were of a very mild nature, arising from cold and wet, in individuals constitutionally subject to the disease.

The only death which has occurred amongst the men has been from accidental drowning whilst stepping from a vessel to the shore on a dark wet night.

The women and children have been unusually healthy throughout the year, no sickness of any description having prevailed amongst them.

Every man, women, and child in the detachment, bears satisfactory marks of vaccination. During the year 15 children born since leaving England have been successfully vaccinated, good fresh lymph having been procured from San Francisco.

The following is an Abstract of Meteorological Observations taken at the Royal Engineer Camp, New Westminster, during the year ending 31st May, 1860 :—

23rd February, 1860.—The highest reading of the barometer, corrected for temperature, was 30·600 inches; the mean height of ditto, ditto, 29·977 inches.

4th April, 1860.—The lowest reading of ditto, ditto, was 29·016 inches.

The cistern of the barometer is about 54 ft. above the level of the sea.

30th July, 1859.—Maximum temperature of air in shade, 93°. Mean ditto ditto, 51° 1′.

4th December, 1859.—Minimum temperature of air in shade, 2° below zero.

23rd June, 1859.—Maximum temperature in sun's rays, 112° 2′.

Greatest amount of humidity, 1°. Mean amount of humidity, ·793°.

2nd June, 1859.—Least amount of humidity, ·333°.

The limiting days of frost were, 1st November, 1859, and 14th May, 1860.

Table showing the Depth of Rain, the number of days on which it fell, the Mean Humidity, and the Mean Temperature of the air, in each month:—

	Inches.	Days.	Humidity.	Mean Temperature.
1859.				
June	0·594	5	·650	65·5
July	0·717	7	·690	68·6
August	1·770	6	·707	69·4
September	4·588	14	·841	60·6
October	11·519	15	·875	50·9
November	6·275	14	·848	35·9
December	4·245	12	·908	32·7
1860.				
January	9·498	16	·950	35·7
February	6·652	20	·897	39·7
March	4·561	16	·752	46·7
April	2·750	12	·699	50·7
May	3·260	15	·703	56·8
Total	56·429	152		

11th November, 1859.—The greatest fall of rain in twenty-four hours, measured 2·540 inches.

The average daily fall throughout the year, was 0·154 inches.

The prevailing winds during the rain were southerly.

The prevailing direction of the wind during November, December, January and February, was westerly; during the remainder of the year, southerly.

There were two very heavy gales of wind during the year, one from the north-west, accompanied by hail, on the night of the 20th of February; and another from the east, on the 4th of April, which commenced about 2 A.M., and continued with great violence until the afternoon.

Thunder and lightning were very infrequent.

The test papers gave no indication of ozone on the 4th June, 27th November, 10th December, 1859, and 5th February, 1860. On all other days, the amount was considerable; the mean for the year being represented by the number 6 on the scale.

The barometer read high on the days when no ozone was indicated, but there were no observable atmospheric coincidences.

The water of Fraser river reached its highest level at New Westminster, in 1859, on the 8th June, and, in 1860, on

the 12th June; having risen 6 inches higher than it was the preceding year. The lowest water during the year under observation, was on the 4th March, 1860, and was 10·5 feet below the level shown on the 12th June, 1860.

On the 19th August, 1859, the flood-tide in the Fraser ran upwards for the first time since May in that year, and on the 22nd May, 1860, it again ceased to stem the downward current.

The latitude of the observatory is 49° 12′ 47″ north; its longitude, as determined by the Royal Engineers, is 122° 49′ 15″ west, subject to revision after a longer series of observations.

REPORT

OF THE

MEDICAL BRANCH FOR 1859.

BY

H. MAPLETON, M.D.,

DEPUTY INSPECTOR-GENERAL OF HOSPITALS AND
HEAD OF THE MEDICAL BRANCH.

TO THE DIRECTOR-GENERAL

OF THE

ARMY MEDICAL DEPARTMENT.

6, Whitehall Yard,
December 1860.

Sir,

In compliance with the instructions contained in the Regulations for Conduct of Business in this Office, I have the honour to submit the Reports and Returns connected with the Medical Branch of the Army Medical Department.

I. Officers of the Department.—On the 1st January, 1859, there were 1,036 Medical Officers on Full Pay; and on the 31st December of the same year there were 1,075.

During the year, 90 Assistant Surgeons entered the service.

Eight Surgeons and 12 Assistant Surgeons died.

Two Inspectors-General, 2 Deputy Inspectors-General, 8 Surgeon-Majors, 3 Surgeons, and 1 Assistant Surgeon, retired upon Half-Pay; and 3 Assistant Surgeons were dismissed the service.

II. Circulars.—Reprints of the Orders that were issued to Officers of the Department during the year, will be found at page 380.

III. Transports.—On the outbreak of the Chinese War, in 1859, the Director-General of the Army Medical Department represented to the Secretary of State for War the necessity of sending out with the Expedition, large steam-ships for hospital-service, to be fitted with every requisite for the efficient treatment and accommo-

dation of the sick and wounded. Such vessels were to accompany the force as closely as possible; and other ships were to be equipped and employed as stationary hospitals at various parts of the coast.

The "Mauritius" and "Melbourne," screw-steamers, of 2,134 and 1,450 tons burden, respectively, having been carefully surveyed, were fitted out at Deptford under the direction of a medical officer, who, acting under the supervision of the Director-General, was held responsible for the efficiency of the fitments, &c.—Vide page 337 for detailed description.

IV. Medical and Surgical Transactions.—*Sun-stroke.*—Mr. Murphy relates two cases from among seven which occurred in the 91st Regiment during 1859, the one proving fatal and the other recovering—the application of cold being the chief therapeutical agent employed.

Dr. Todd objects to the term "sun-stroke," the direct influence of the sun not being necessary for the production of the affection. He regards it as a form of "heat-fever," produced by the congested state of the principal organs of the body. He employs quinine, cold douche and stimulants, and never resorts to blood-letting.

Dr. Barclay observes that men who have formerly led intemperate lives are most, though not exclusively, liable to sun-stroke. The attack rarely takes place during a march but is usually very sudden. In his opinion, the disease at first is entirely a nervous affection, the vascular system only becoming secondarily implicated. In treating the disease, he never resorts to blood-letting, but chiefly relies upon the application of cold, carefully watching its effect in depressing the circulation. In several cases, in which convulsions have been present, he has used chloroform with advantage.

Of 111 cases of sun-stroke treated in 1859, 44 proved fatal, and 67 recovered.

Dysentery.—Dr Massey regards variation of temperature as the chief exciting cause of dysentery in India, and does not attribute much effect to irregularities of diet, with the exception of the prevalent custom among soldiers of drinking large quantities of cold water. In the treatment of the disease he states that the greatest advantage has resulted from the employment of drachm doses of ipecacuanha, and the entire discontinuance of blood-letting in any form. This is shown by a comparison of the results so obtained in 1859 with these obtained from the ordinary treatment in 1858.

Pleurisy.—Dr. Robinson relates a case of asthenic chronic pleurisy, with an effusion of pus, which had proceeded to a much greater extent than the symptoms indicated. During its progress the case became complicated by an apoplectic seizure, terminating in paralysis. When the extent of the empyema was discovered paracentesis thoracis was performed, and a large quantity of pus was discharged. The patient died in a few days, and at the autopsy unsuspected disease of the kidney and liver was found; much pus still remained inclosed in an organized sac in the left pleura, the left lung being compressed to the size of a hand. The whole of the right corpus striatum was disorganized by softening and purulent deposit.

Surgical Reports from General Hospital, Chatham.—Inspector-General Taylor and Surgeon-Major Matthew report the particulars of cases of gunshot injury received during the late mutiny in India; as well as interesting instances of surgical operations performed at Fort Pitt, Chatham.

Determination of the Carbonic Acid and Watery Vapour in the Air of the Wards at Fort Pitt.—Two papers on this subject, by Dr. Gore, and Messrs. Godwin, Pilcher, and Walters (Medical Cadets), close the series of papers.

V. Two Lectures by Deputy Inspector-General Longmore, Professor of Military Surgery, at the opening of the Army Medical School in October 1860, are subjoined, as explaining the objects contemplated in the establishment of the School.

The papers selected for publication on the present occasion are few in number; but it is to be hoped, when it becomes known that such selection is to be made annually, a larger proportion of reports of sufficient interest and importance to justify their publication will be received from Officers of the Department.

I have the honour to be,

Sir,

Your most obedient humble servant,

HENRY MAPLETON, M.D.,

Deputy Inspector-General.

I.

Detailed Histories of two cases of Apoplexy, or the Apoplexy of the Hot Winds, selected from seven cases of that disease, which occurred in Her Majesty's 91st Regiment, stationed at Kamptee, Central India, in the months of April, May, and June, 1859.

By M. MURPHY, Esq., *Surgeon, 91st Regiment.*

Private J. O., age 26, an Englishman; enlisted in 1854, arrived in India October, 1858; a slight spare-built man of delicate appearance; reported to have been in the habit of drinking to excess for some days, and then of abstaining altogether. Has had no serious illness since enlistment. Admitted into hospital at 12½ P.M. of 25th May, 1859, complaining of great pain in the head, referred to the forehead and vertex; tongue dry and furred; pulse full and rapid; skin very hot and dry; bowels confined for two days. On admission he was seen by the apothecary on duty, who administered an emetic, and after its operation 4 oz. of the mist. sennæ; and cold was applied to the head. About 3 P.M. the purgative medicine operated twice. He had, during the interval, lain tranquilly in bed, and had not been observed to get up to make water. On returning from the stool the second time, about 3½ P.M., he was observed to stagger, and on lying down in bed he commenced to moan; the apothecary was immediately called, and found him insensible; pulse very rapid, 140; the skin intensely hot; pupils contracted and conjunctivæ injected; breathing rapid, labouring, and stertorous. The cold douche to the head was immediately used. At 4 P.M., on being visited, he was found presenting the above symptoms, and in addition convulsive movements of the upper and lower extremities, and of the muscles of the neck. The skin was still very hot: the cold douche was continued, a turpentine enema administered, two drops of croton oil placed on the tongue, and sinapisms applied to the epigastrium and calves of the legs. After continuing the douche for an hour, its use was suspended, the skin having become cooler, and the bowels having been freely moved. The patient was moved into a dry bed, and

placed in front of the therm-antidote; his head was shaved, and the acetum mylabris cichorei (the blistering fluid furnished in this Presidency) freely applied to the scalp and back of the neck; a spirit lotion was applied to the head; the thorax rubbed with camphorated spirit, and tea-spoonful doses of a mixture having 30 minims of spir. ammon. arom. in 1 oz. of mist. camph. were given. At 9 P.M., the pupils were dilated and insensible to light; pulse too rapid to be counted, though easily compressible; respiration 56, stertorous; heat of head and trunk increased; coma complete; spasms of the extremities and of the neck still continued. The head and trunk were sponged with cold water; the acetum mylabris again applied to the back of the neck and to the spine, and sinapisms repeated to the epigastrium and legs; the catheter was introduced into the bladder and about a pint of urine drawn off; the spirit lotion was directed to be kept applied to the head, and spirit. ammon. arom., in doses of 15 minims, to be given every half hour. He continued in the same state during the night, and died at 5·45 A.M. on the 26th.

Sectio cadaveris eight hours after death.

Head.—The brain presented a healthy appearance. The external veins were somewhat full, and the arachnoid membrane was slightly opaque. No clot nor effusion of serum in the ventricles.

Thorax.—With the exception of slight congestion of the posterior portions of both lungs, probably the result of gravitation, the contents of this cavity were healthy.

Abdomen.—A large patch of vascularity was found at cardiac extremity of stomach. Other viscera healthy.

Lance-Corporal W. H., age 31, an Englishman; enlisted in 1846, arrived in India in October, 1858; 5 feet 11½ inches in height; slight make; dark hair and eyes; reported to be of temperate habits; had served at the Cape of Good Hope and in the Mediterranean; had not suffered from any serious illness since enlistment; was admitted into hospital on 31st May, 1859, and is thus reported on that day:—Was brought to hospital at 8 A.M. this morning, complaining of pain in the head, oppression of the chest, and nausea; had been employed during the morning as barrack orderly: had marched the sick and convalescents to the hospital, and back to the barracks, a distance of one mile each way; had got back to the barracks before 7 A.M., the sun being then hot, but not oppressively so. When in the barrack square he felt ill, and, on coming to the hospital, he was seen by the

apothecary on duty (the medical officers having left at 8 o'clock A.M.), who reports that he had a hot skin and quick pulse, and that he complained as above. He was placed in bed, an emetic of ipecac. pulv. was given, and, after its operation, 5 grains of calomel and 4 oz. of the senna and magnes. sulph. mixture. A cold lotion was applied to the head. He remained in bed during the day; bowels were moved twice, but he was not noticed by the patients in the beds next him to get up to make water. He slept during the greater part of the day. At 6 P.M., there being then, as had been the case during all the day, a very hot wind blowing, with the thermometer in the wards of the hospital at 96° Fahrenheit, on his returning from the water-closet he was observed to stagger, and, on lying down in bed, he screamed, and commenced talking incoherently. This being the hour of evening visit, he was immediately seen by me, and found with an intensely hot skin—the true calor mordax; pulse 120, full and bounding, but easily compressible; respiration 40, and with much heaving of the abdomen; eyes fixed and prominent, pupils in a medium state of contraction. He was at once removed, in his bed, to the verandah of the hosptal, and the cold douche applied to the head and chest. On being spoken to loudly, he answered in a wavering uncertain manner, and continued to do so for some fifteen minutes after the seizure, after which he manifested no sign of hearing when spoken to. During the continuance of the douche there was convulsion of the upper and lower extremities, and the respiration appeared to be entirely abdominal, the brachial, femoral, and carotid arteries, and the abdominal aorta, also pulsating strongly. Pupils continued in the medium state, and the eyes fixed and prominent; face, which had been slightly livid, became pale. The douche was continued for one hour, the water being poured in a full stream from a watering pot by a man standing on a chair, and who raised his arms to a height of five feet above the head of the patient. During the continuance of the douche the heat of the head and trunk became reduced, and the pulse fell. After about twenty minutes of the douche sinapisms were applied to the epigastrium, and to the calves of the legs; a turpentine enema was administered, two drops of croton oil were placed with a feather on the back of the tongue, and the catheter was introduced into the bladder, and about six ounces of urine drawn off. At the expiration of an hour he was placed in a dry bed, and moved in front of a therm-antidote; the hair was cut close all over the head, and a spirit lotion applied to the head and chest,

the evaporation of which was assisted by the current of air from the therm-antidote, and 10 minims of spir. ammon. arom. in 1 drachm of mist. camph. were administered.

I visited him again at 9 P.M., and found him in profound coma. Bowels had been moved once scantily; skin was again very hot and dry; pulse fuller than before and more resisting; respirations 40. There were convulsive twitchings of the upper and lower extremities, and the abdomen was tympanitic. Twelve leeches were applied to the occiput, a second turpentine enema was administered, the spirit lotion to head and chest continued, and frictions of oil and turpentine made over the abdomen. The spir. ammon. arom. was continued as before.

June 1.—At visit, at 20 minutes before 6 A.M., he was found lying on his side, breathing tranquilly, and conscious. Pulse 84, and soft; skin cool. He complained of pain of the abdomen; no pain of head; eyes natural; bowels had been freely moved twice after the enema; the leeches had bled freely. At 12, midnight, he had recognised his brother, a soldier of the regiment, who had been sent for to attend on him, to whom he had spoken, asking him "what it was he was doing to him." He complains of thirst; has made water this morning; abdomen is still full and slightly tympanitic. Had some tea brought, which he drank readily. Turpentine fomentation was applied to the abdomen, and effervescing draughts, with spirit. lavand. co. and spir. ammon. arom. were given every second hour, with sago, tea, lemonade. In the evening he felt better; had no pain of head; had made water, but not frequently; bowels were moved once; pulse 84; skin cool; respirations 20.

On the following day he was much improved; had slept; the tympanitis of abdomen had subsided, and he only complained of soreness of his legs from the mustard plasters. Subsequently, the integuments of the calves of both legs sloughed, but he gradually gained strength, and was discharged from hospital quite well on the 28th June, and has, up to this period, 1st August, 1859, continued at his duty. He stated that he had no recollection of what occurred from his return from the water-closet, at 6 P.M., to 12 at night, when he recognised his brother.

II.

Remarks on Solar Apoplexy.

By DR. R. C. TODD, *Surgeon, 99th Regiment.*

This disease has generally been termed *sun-stroke*, a term which is, in my opinion, highly objectionable, not only because the direct influence of the sun is not necessary for its production, but also, because it is liable to mislead the practitioner. I am disposed to regard it as an aggravated form of heat fever, in which the effect of heat is manifested not only in the brain, but in the lungs, heart, liver, spleen, and kidneys, which vital organs are choked up and their functions suspended, although the formidable head-symptoms most especially attract attention. In one case which came under my observation, almost from the very beginning, the lungs were gorged with fluid, and the patient was literally suffocated; and at the post-mortem examination every internal organ was found to have participated in the same engorgement. Since the arrival of the 99th in India, six cases of this disease have proved fatal, four of them being non-commissioned officers. They were all men of 34 years of age and upwards, and three of them were men whose habits, to my knowledge, were intemperate.

In none of these instances was I enabled to ascertain the existence of that frequency of micturition noticed by Deputy Inspector-General Longmore in similar cases; but such a symptom might have been expected from the intensely dry state of the skin which was present in every case, the kidneys performing part of its function, and frequent micturition being the result. In two cases the kidneys became so highly congested that hæmaturia occurred. In the first case, that of a boy 16 years of age, who had exposed himself, while drying some clothes, to the direct influence of the mid-day sun. Head-symptoms supervened in the evening. He passed no water for a couple of days, and when the discharge was re-established, it was intimately mingled with blood. This boy recovered. In another case the patient was upwards of 34, of temperate habits, and the symptoms were those of deep coma, but without stertorous breathing, the respiration being quite easy. As he passed

no urine I introduced a catheter, and drew off, on two separate occasions, about six ounces of bloody urine. This man died; and the state of congestion which I have already mentioned was observable in all the organs, with the exception of the lungs, which were perfectly healthy.

In another patient, a strong young man, hæmaturia also occurred. He came to hospital complaining of the usual symptoms of the prevailing fever, and was treated by mild purgatives and diluent drinks, calculated to produce diaphoresis. He recovered; and as he approached convalescence his urine became very bloody. He experienced a sensation which he described as that of a fluid running down the course of the left ureter, and, afterwards, a desire to micturate. A single full dose of quinine arrested the hæmorrhage, which, however, returned on the following day, but was finally removed on the administration of purgatives. In the early stage of this affection I would be inclined to advise the administration of a very full dose of quinine, with the cold douche, and stimulants; and in no case, to my mind, is depletion by leeching or venesection advisable.

III.

Remarks of Dr. Barclay, 43rd Light Infantry, on Sun-stroke, in his Report for 1858-59.

For a long time before the occurrence of the first case of sun-stroke, every one in camp had suffered more or less from prickly heat; the severity of that troublesome affection being, as a general rule, in proportion to the amount of perspiration from each individual. When the heat of the weather became more intense, one of the first symptoms of its producing an injurious effect was the gradual disappearance of the cutaneous eruption, the skin getting rough and scaly, and perspiration ceasing, at the same time that the bowels became obstinately constipated. The appetite soon failed almost entirely; a feeling of nausea was generally complained of; the urine was rather copious and limpid, and the calls to pass it frequent; sleep was, from the first, much interrupted, and soon became almost impossible; vertigo was frequently complained of, but headache rarely. In fact, as a general rule, there was no complaint of pain. What the men complained of when they came to hospital, or fell out on the march, were extreme debility and weariness, prostration on any exertion, vertigo, and nausea, and in many cases more or less incontinence of urine, more particularly after exposure to the sun. The pulse was, for the most part, frequent, sharp, and rather small.

From these symptoms, or, at all events, from some of them, almost every one who was exposed to the intense heat at the foot of the Punnah Ghaut, in the end of May 1859, suffered in a greater or less degree. If, therefore, these symptoms are to be considered premonitory of sun-stroke, inasmuch as no one became the subject of that affection who had not previously suffered from them, it must be kept in mind that they prevailed in a very much larger proportion of cases in which the symptoms of that affection did not supervene. I look upon them rather as predisposing to sun-stroke than as being premonitory of it, in the usual sense of the term. There can be no doubt as to the treatment appropriate for these cases. Rest, cold sponging of the body, cold applications to the head, regulation of the bowels, saline diaphoretics, or removal to a room or tent cooled by wet tatties, and, if necessary, by a therm-antidote, are the remedies indicated; but, as we were circumstanced last

year, the last, which is by far the most important part of the treatment, was, of course, quite out of our reach. Very many of the less severe of such cases were not admitted into hospital at all. The hospital tents afforded no better protection from the heat than those occupied by the companies. Rest was provided, as far as was possible, by allowing the men who complained to ride in the sick carts, and the necessary medicines were given in camp.

The subjects of sun-stroke were, for the most part, and especially at first, some of the stoutest and most muscular men in the regiment. A large proportion of them were certainly men who, at some former time, had been addicted to intemperate habits, but this rule was by no means universal; and, from the circumstances in which the regiment had been placed, none of them for the previous three or four months, had any opportunity of indulging habitually in intoxicating liquors. It was very evident, however, that men who had injured the tone of their nervous system by intemperance were much more liable than any others to sun-stroke. That all were greatly predisposed to it by the exhaustion produced by the previous march, there cannot be any doubt. I saw no reason, however, to suppose that alarm acted at all as a predisposing cause. Even at the time when deaths were most frequent, there was no sign of any feeling of the kind among the men. The attacks of sun-stroke came on, with very few exceptions, when the men were in their tents; generally during the day, but in several instances during the night; never, except in one instance, on the line of march. Most of them were sudden. The patient had generally been lying in his tent, often seemingly asleep. Sometimes the attention of his comrades was first directed to him by his stertorous breathing, and, on an attempt being made to rouse him, he was found to be insensible. In other instances, he started up and endeavoured to escape from the tent, staggering about, and struggling violently when laid hold of, evidently much alarmed, and anxious to escape from some imaginary object of terror, but in a very few minutes becoming insensible. In a few cases, in which the patient had come to hospital himself, or with the assistance of a comrade, complaining of the symptoms before mentioned, viz., debility, nausea, vertigo, incontinence of urine, &c.; insensibility and the other symptoms of sun-stroke gradually supervened; but such cases were not numerous.

The symptoms of sun-stroke, when the disease was fully developed, were very constant and regular. The patient lay on his back, without sense or motion, breathing rapidly,

and, as death approached, more and more stertorously; his eyes, fixed and slightly turned upwards, becoming gradually more glassy, the pupils greatly contracted, the conjunctivæ of a pink hue, gradually becoming deeper; his face pale; the skin dry and burning to the touch; the heart's action very rapid and forcible, the impulse being perceptible from a considerable distance; the pulse frequent and sharp, but not strong, giving the idea of a thinner fluid than blood circulating beneath the finger; frothy mucus, sometimes clear, at other times of a brown colour, was, in most instances, ejected from the mouth and nose, and often in large quantity. If the disease did not yield to treatment, the heart's action soon began to fail, the pulse became fluttering, the breathing more stertorous, and, in a period varying from a few minutes to a few hours, death closed the scene. A comparatively small number of cases were, from the first, attended with convulsions. These generally began in the upper extremities, and in some cases they did not extend further, the patient either becoming rapidly insensible or recovering. In many cases, however, they extended to the whole of the voluntary muscles, and were of the most violent description, ceasing frequently for from two or three to fifteen hours, and again returning.

In a few instances, the nervous irritability was quite as much increased as in hydrophobia. In some of these the patient, as far as his mental faculties were concerned, seemed to be in a state, in some respects, analagous to somnambulism. Although, to a great extent, unconscious of what was going on about him, and quite incapable of understanding or answering a question, his whole appearance was indicative of the greatest terror, and a few drops of water found on the ground near him were sufficient to throw him into the most violent convulsions.

In the majority of these cases, coma supervened before death, but in a few of them the convulsions continued to the last, and death took place while the body was contorted by them. They were not confined to any one set of muscles.

The view I took of the pathology of the disease was, that in the first instance it was entirely a nervous affection, implicating, however, the sympathetic as well as the cerebro-spinal system; that it was brought on entirely by the over-stimulation of intense heat, and that the vascular system was only implicated secondarily.

It is needless to speculate as to the nature of the affection of the nervous system, while we remain in ignorance of the minute structure and mechanism of that system, but it

is evident that the change in it which produces these symptoms is at last a sudden one, and that there is a disturbance of some equilibrium which is beyond the reach of our senses. The disease, I believe, could be produced as easily and as certainly by exposure to artificial heat as by exposure to the heat of the sun. That direct exposure to the sun, at all events, is unnecessary for its production, we have had ample proof, only one case having occurred during such exposure; but at the same time there cannot be the slightest doubt that the cases would have been much more numerous, had not every precaution been taken to prevent the men from being so exposed. There can be no doubt that the extreme degrees of the hot winds render their effects very enervating, and that by so doing the tendency to sun-stroke must be increased. Of the effect of exposure to an equal temperature, in a damp atmosphere, however, I have had no experience.

The treatment which I adopted in all cases of the disease was based upon the view which I had taken of its pathology. Venesection was considered wholly inadmissible, and was never employed. The patient was stripped of his outer clothing (if he had any on) as soon as possible, placed in a sitting or semi-recumbent posture, and the cold douche applied, from a height of three or four feet, to his head and along his spine and chest, his extremities being, at the same time, sponged with cold water. The effect of this treatment had to be carefully watched. In many instances, consciousness was speedily restored by it; the first symptoms of convalescence being, generally, relaxation of the pupils; but it had frequently to be repeated several times, on account of a return of insensibility.

In a considerable number of cases it had to be discontinued altogether, in consequence of its occasioning failure of the circulation, and in such cases the application of cold to the head was all that could be subsequently borne. After the employment of the douche, a large blister was in all cases applied to the nape of the neck, and this remedy frequently produced the best effects. In several instances coma recurring after an interval of ten or twelve hours, was completely removed by the application of a second blister to the vertex, and in a few cases the remedy had to be repeated still oftener. A purgative enema was also generally given after the employment of the douche, and it had often to be repeated several times before any effect was produced on the bowels. Sinapisms were applied to the extremities in most cases; occasionally a few leeches were applied to the temples, with the view of relieving congestion, but I cannot

say that I ever saw much good produced by them. As a general rule, no medicine could be given by the mouth, as the patients were incapable of swallowing; but in the slighter cases, or in those seen at a very early period, a stimulant was sometimes given, and a purgative always. Benefit was certainly derived from stimulants occasionally, especially in those cases in which the pulse was extremely small and weak; but it appeared to me that the stimulant should always be a mild one, and be repeated if necessary. No effect seemed to be produced by stimulant enemata.

During convalescence, the treatment consisted in careful regulation of the bowels, which were always inclined to be constipated, the employment of saline diaphoretics and small doses of quinine, and the administration of an opiate at night in those cases in which sleeplessness continued. The skin frequently remained dry and the pulse rapid for some days, and the patient had often a heavy look for a still longer period. In a few cases there was congestion of the conjunctivæ and copious serous discharge, which continued for some days after all other symptoms of the disease had been removed. After having witnessed the uselessness of the ordinary remedies in several of the convulsive cases, attended with the extreme nervous irritability above described, I was induced to try the effect of the inhalation of chloroform. The result was highly encouraging. After a few inspirations the convulsions ceased, and, as a general rule, sleep was very easily induced. In a few cases certainly, after a considerable interval of consciousness, coma supervened, and was followed by death; but I am satisfied that in some instances life was saved by this remedy, and that in all in which it was employed, life was prolonged. The cases, however, in which it can be employed are comparatively few, and further observations on the subject are required. There can be no doubt that the chief cause of the want of success in the treatment of sun-stroke, is the extreme rapidity with which the diseased action progresses. Unless an impression can be made on it at once, treatment is of little avail, and many patients when first seen are in a hopeless state. Could the cold douche be applied at the moment when the symptoms are first felt, the mortality from the disease would, I believe, be very small indeed; but this, so far as a body of men in the field is concerned, must of course always be an impossibility.

The movements of the regiment during the period at which these casualties occurred, were confined entirely to Central India, and in a great measure to Bundelcund. The features of that district, or at all events of that portion of

it through which we passed, are the following:—It consists of a central elevated plateau, for the most part of "cotton soil," watered by numerous small streams, and broken by many detached ridges of considerable height, and with a belt of low and level country running round the circumference of the former, on the north and east. On the south, the descent to the lower country is gradual; but on the north side it is abrupt—a steep range of hills covered with jungle separating the two districts, and only admitting of a passage from the one to the other at a very few points. The ghaut by which we descended, viz., that at Bisramgunge, near Punnah, is said to be the worst of the whole. More to the eastward, at Kallinger, there is an admirably constructed road by which, on our return, we ascended without any difficulty. The extreme difference in height between the two districts is probably fully 1,500 feet. Between Jubbalpore and Banda there are two ranges of hills, the one that already described as bounding the elevated district on the north, the other parallel to it within about twenty miles of Jubbalpore: these ranges are everywhere covered with jungle. The central part of Bundelcund, however, is elsewhere very free from it. From the northern range, spurs run down for a considerable distance into the lower district, and it was between two of these that our march lay after we descended the ghaut near Punnah.

In the lower district there are here and there a few detached rocky hills of no great height, but the country, generally speaking, is very flat, especially towards the north. From the time that we left Banda until our return, we never saw any rising ground of more than a few feet in height. The soil of this district, which is very deep, is nearly everywhere of the "black cotton" description so common in Central India, fissured in all directions in the hot season, and in the rains little better than a quagmire. It is, however, of great fertility, and is everywhere so highly cultivated, that in September and October, when the crops were on the ground, we had often difficulty in finding sufficient clear space for the encampment of a few hundred men. These crops were also so luxuriant, that in many places men mounted on camels could not be seen at a few yards distance in them. The climate of this district is an extremely trying one. The hot season may be said to begin in March, and the hot winds set in in April. The direction of these hot winds is, for the most part, westerly. In the neighbourhood of the hills, in particular, they frequently shift to other points, and some of the hottest winds that we experienced were easterly. These winds blow, with scarcely

any intermission, day and night, and their influence on the men living in tents and marching every day, was most exhausting. The face of the country becomes speedily parched by them, and the soil cracks and yawns in fissures sometimes yards deep. The heat of last season was very unusual, and is said to have been greater than had been experienced for twenty-five years, very little rain having fallen during the previous cool season. The heat, especially at Punnah, was almost unbearable; withering hot winds blew with scarcely any intermission night and day, and while encamped for four days in a narrow ravine, which military reasons prevented us from leaving, the heat exceeded anything that we had ever experienced. During the day the thermometer varied from 115° to 118° in the largest tents, and in the smaller ones it reached 127°, and in the middle of the night I once observed it standing at 105°. So overpowering was the temperature, that even the native followers were dropping down from sun-stroke, and in some instances dying in less than an hour.

It is somewhat difficult to form an estimate of the mortality from sun-stroke in proportion to the number of cases of the disease—the line between it and simple fever is so ill defined—that probably no two medical officers would classify a number of cases in the same way. If the term sun-stroke were to be confined to those cases in which there is complete insensibility, the number would be greatly limited, and the mortality would considerably exceed one in two. If, on the other hand, all cases were to be included in which vertigo, nausea, prostration, and dribbling of urine are present, and clearly attributable to the heat of the weather, the number would be greatly increased, and would include not only numerous cases returned under the head of Febris c. c., but very many more which are never admitted into hospital at all. I am disposed to steer a middle course, by classifying under the head of Ictus Solis, all those cases in which insensibility, more or less perfect, or convulsions, were present; and under the head of Febris c. c., all those in which these symptoms were absent; and in doing so, I have been guided by the belief that the two classes of disease differ not only in degree, but in nature. Adhering to this view, the number of cases of sun-stroke admitted during the year was 111, the strength being 1,004, of which 44, or 39·63 per cent., proved fatal, and 67 recovered. The greatest mortality occurred in the months of May, June, and July, during which period the men were harassed with long marches, and their vital force much impaired.

IV.

Abstract of a Paper by Dr. Massey, 2nd Dragoon Guards, on Acute Dysentery, referring especially to its treatment by large doses of Ipecacuanha, in the Regimental Hospital of the above corps during the year 1859, in Oude.

The etiology of dysentery in India has excited much attention and discussion, and there are few questions in connection with this disease more worthy of consideration, especially when directed to the practical point of indicating prophylaxis. The ordinary division of causes into predisposing and exciting seems the simplest and most definite. The former may be said to be altogether unavoidable, whereas some of the latter causes may, to a certain degree, be guarded against. The predisposing causes are chiefly to be referred to the degree of unsuitableness of the individual European constitution to the climate of India,—often to a short residence in the country not having provided a condition of acclimatization.

The exciting causes of dysentery in India are very various; but the principal I believe to be connected with variations in temperature, which, by checking perspiration, induce vitiated secretion and internal congestions. These influences are chiefly felt in the Bengal Presidency during the hot winds, especially in the rainy season of September and beginning of October. During the prevalence of these hot winds, soldiers wear little clothing, constantly discarding flannel-belts, &c.; and while in a profuse perspiration, they lie down in a draught; the wind, even though it may be hot, acts coldly upon the wet calico clothing, and bowel complaints or fever result. Soldiers are incautious as to what they eat, occasionally indulging in the use of melons, cucumbers, &c.; but it certainly has never appeared to me that irregularity in food in India was much connected with the induction of dysentery. The diet of the soldier in India is more varied than in England; and though the meat is not so nutritious, it is still good and abundant; and the variety in cooking, as well as the care bestowed by the native cooks upon this essential point, vastly exceeds that practised for soldiers in England up to the period of my leaving home, in 1857. It does not often happen that soldiers eat

too much. It seems a wise provision of nature that the relaxation produced by the climate on the European constitution much restricts the appetite and limits the desire for food to the power of digestion and requirements of the system.

It appears to me that yielding to thirst, and drinking large quantities of water, is much more a source of derangement of the bowels amongst soldiers in India than any irregularity in food. They drink often enormous quantities of water by day and night; and it is difficult to conceive that this can at all times be entirely eliminated by the kidneys and skin. In many parts of India the water abounds in salts, and is capable of exerting, when taken in great quantity, a laxative effect.

In the same manner as other diseases which prevail epidemically in India, affections of the bowels may exhibit in different years, in the same locality, variations both in extent of invasion and seriousness of type and mortality. Many men of experience recognize a malarious origin of dysentery, but as yet I have not seen cases that have satisfied me on this point; on the contrary, my experience would tend to show that malarious fever and dysentery often prevail at different times, and that a great increase of the one may not be associated with an increase of the other. I have often observed, in an attack of intermittent fever, a local determination to the mucous membrane of the bowels similar to the determinations so frequently engaging the liver or spleen, and in a similar way ceasing for the time with the intermission of the paroxysm before remedies have been used, bearing the character of a mere local congestion or determination during a paroxysm, and not a specific disease.

A contagious origin of dysentery has not been observed in the hospital of the 2nd Dragoon Guards. The dysenteric patients were located in the same wards with other sick; and no spreading of the disease occurred amongst these. Often the enema syringes used in such cases were indiscriminately employed, but no instances of contagion resulted. At the same time, it is not attempted to establish the doctrine from such a limited experience, that dysentery is never contagious or never has a malarious origin.

The symptoms of acute dysentery are so unmistakeable, and at the same time there exists so much similarity between cases, that, though there are distinct and important appreciable differences, still it does not seem to me necessary to consider these in detail. No doubt the character of the motions, seat of pain, type of the disease, presence of

dyscrases or not, as well as the consecutive changes, are all of vast consequence in the prognosis and usually in the treatment; yet, as the system of treatment exclusively practised by me in the year 1859 was identical in all, it will suffice to allude alone to special symptoms in connection with the general consideration of the subject, and as a means of distinguishing between diarrhœa and dysentery. Pain was often referred to the situation of the caput coli, or to that of the sigmoid flexure, and sometimes the entire abdomen was implicated. It was nearly universally increased by pressure on the abdomen; and it was very seldom, except, in the very commencement of dysentery, that this symptom was absent. In fact this is, next to the state of the dejections, one of the most distinctive characteristics in the diagnosis of dysentery from diarrhœa. It is noticeable that the full pulse and fever observed in the acute dysentery of Europe are by no means so marked in India. Often the pulse is increased in frequency, and the skin hot and dry, but these conditions to any marked degree are much less commonly met in acute dysentery in India than would be deemed likely to be the case, considering the usual age of soldiers. As the case advances, more serious symptoms are presented, the pulse and the skin becoming more appreciably affected, and pain in the abdomen and tenesmus being usually associated. It may also be remarked, that in the passage of bilious motions, or very vitiated secretions without the presence of dysentery, there may be very great tenesmus. Nevertheless, it is said, and I believe with truth, that the presence of the latter symptom to any great extent is very characteristic of the disease engaging the lower part of the bowel, the sphincters being directly or sympathetically affected. I think I have verified this in previous years by pathological investigation. When, however, a case of acute dysentery is presented for treatment, the never-failing guide to the nature of the disease is the character of the dejections. Other symptoms and signs may be deceptive, but whether the motions be slime, or slime and blood mixed with other vitiated secretions containing scybalæ or not, the alvine discharge is to the experienced, pathognomonic of the true nature of the disease.

I now come to the consideration of the most important question of all, namely, the means of cure. The system of treatment exclusively pursued in all cases this year has been that previously brought to the notice of the profession by several writers. This system of treatment may be said

to consist of the exhibition of large doses of ipecacuanha. Mr. Docker, Surgeon, 7th Fusiliers, pursued this practice in the Mauritius,* and from the date of his cases this remedy appears first to have been adopted by him in 1855.† Speaking of his success, he says, "in all constitutions, robust as well as delicate under all circumstances, the result is the same;" and here, as far as my experience of acute dysentery goes in this country, I feel almost justified in endorsing his statement by using similar language.

In nearly every case of acute dysentery, when first seen, half an ounce of castor oil is at once given, with a view of clearing out scybalæ and vitiated secretions. As soon as the oil has freely acted, say in from four to six hours, a drachm of ipecacuanha is given in a little water, a mustard plaister having been applied to the stomach about half an hour previously, at which time, likewise, thirty drops of laudanum are given. Mr. Docker's view on this point seems to be that the mustard plaister and laudanum tend to enable the stomach to retain the ipecacuanha. I regret to be at issue with him in any portion of his remarks, but I have not found the same tolerance of the stomach for large doses of ipecacuanha that he seems to have experienced. I sometimes have encountered difficulty in this respect; but it seldom happens, I imagine, that the entire drachm can be thrown up, even when sickness is quickly induced. When one dose is rejected I usually give a second soon after; this generally succeeds, but if not, by waiting a few hours the object is often readily effected. If great sickness and retching are caused by the medicine when given in fluid, it is often retained if given with a little opium in five grain pills, three or four at a dose; and two or three drops of hydrocyanic acid, given a little before the ipecacuanha, often assists its retention. I have likewise exhibited it frequently in the form of

* "This medicine (ipecacuanha), brought from the Brazils by Piso (*Waring's Manual of Therapeutics*, p, 221) towards the end of the 17th century, was given by him in dysentery in drachm doses, in the form of infusion. It was in more or less use throughout the 18th century, and about the middle of the century was much esteemed by Sir John Pringle, who gave it sometimes in scruple doses, at others in five-grain doses, three or four times at intervals of two or three hours. Mr. Mortimer and other medical officers of the Madras army, upwards of thirty years ago, thought highly of it, and used it freely in scruple doses, combined with powdered gum-arabic. Still more lately, Mr. Twining advocated its use in doses similar to the smaller ones given by Sir John Pringle. Haspel also combines ipecacuanha in full doses with calomel in the early stages of the disease."—*Clinical Researches on Diseases in India*, by Charles Morehead, M.D. (1860), p. 298.—H.M.

† *Lancet*, 31st July and 14th August, 1858.

infusion in enema with tinct. opii, but I am not satisfied that I have seen very marked benefit from this mode of exhibition. It has commonly been as an adjunct to medicine given by the mouth. I have no case to record of treatment solely by enemata of ipecacuanha. The ingenuity of the prescriber may be taxed to provide that a sufficiency of the drug be retained, but by a little management it has hitherto always occurred to me to succeed. I have noticed that intolerance of the stomach to large doses of ipecacuanha was more frequently encountered in weakly men than in the more robust; and when dysentery had existed for a few days there has been less power in retaining the medicine than in cases submitted to early treatment. Mr. Docker's statement to the effect, that if the medicine is retained for even a quarter of an hour before sickness is induced, it seems to exert its beneficial influence, is to be borne in mind. This, doubtless, results in a great measure from the circumstance that only a portion of the ipecacuanha is thrown up. Whenever tolerance from the first prevailed, a speedy cure, thorough and complete, was the result.

In cases of acute dysentery the effect of one or two large doses of ipecacuanha is usually to produce one or two feculent motions, and the disease terminates. There is in general no gradual alteration of secretion or other symptoms, the disease seeming simply to end; confinement to the recumbent position for a day or two and farinaceous diet are alone necessary; pain, tormina, tenesmus, procidentia ani, blood, mucus, jelly-like secretion, all cease; the appreciable action of the medicine, being a few bilious loose motions. But in some instances the ipecacuanha does not act so speedily, or with such decided benefit, and its exhibition at stated intervals may be necessary for two or even three days. Not infrequently the intolerance of the stomach for the medicine prolongs the treatment.

Again, though the dysentery is cured, a degree of looseness of the bowels may continue for a short time; and in cases where dysentery has prevailed for some days before treatment is sought for, the cure is usually somewhat protracted. I have also seen occasionally a troublesome symptom continue, I allude to the formation of scybalæ. This tendency, or at least the condition that creates it, is so liable to lead to the invasion of fresh symptoms of acute disease, that, as long as it lasts, it is always to be watched and prescribed for; but, as has been before observed, the remedy finally succeeds.

The following abstracts of two cases from the Hospital

Register may be taken as ordinary examples of the disease and the efficacy of the remedy :—

Private James Scott, 2nd Dragoon Guards, aged 27, a Scotchman; a moulder by trade; of temperate habits; a stout made man. Service, four years and eight months, of which, in India, one year and six months.

May 3rd, 1859.—Came to hospital this morning with purging of slime and blood, unmixed with fæces. He says he has great pain in the abdomen, and intense straining when at stool; the purging has existed for two days. His countenance is sunken and anxious; tongue whitish, pulse 90, weak. The pain in the abdomen is increased much by pressure, but is diffused. It is greatest, however, over the descending colon. To have half an ounce of castor oil. After six hours a sinapism to the abdomen, and to take a draught of half a drachm of tinct. opii at the same time. Half an hour after this, to have a drachm of pulv. ipecacuanha in water. The ipecacunha to be repeated, if necessary.

Vespere.—Bowels freely moved by the oil several times; has retained the ipecacuanha on the stomach.

May 4th.—Is much better to-day; bowels but twice moved since he took the ipecacuanha; both motions large, thin, and feculent, the last containing neither slime nor blood; no pain in abdomen; pulse 80; no medicine; arrowroot.

5*th.*—Convalescent.

13*th.*—Has been quite free from dysentery since the 4th. Discharged to duty.

Sergeant John Page, 2nd Dragoon Guards, aged 28, admitted on the 18th July, 1859. Is a tall, well-made man; service ten years, of which, in India, one year and nine months. States that he has been purged for the last three days, that he has but slight pain in the abdomen, and very little straining when at stool. He says his motions are natural, with the exception of being thin. Pulse regular. To have chalk mixture with tinct. opii frequently during the day. A mustard plaister to be applied to the abdomen.

19*th.*—He continues to be purged. On looking at his motions they are distinctly dysenteric, consisting of but little fæces, mixed with slime and blood. He complains of pain in the abdomen, increased by pressure, and chiefly referred to the lower part of the descending colon and sigmoid flexure. He likewise suffers from straining when at stool. Countenance anxious and sunken; pulse small, 85; appetite bad. To have a dose of oil, and in the evening a drachm of ipecacuanha in the usual way.

20*th.*—Had not long taken the ipecacuanha last night before it made him very sick. Purging continues, bowels moved nearly every half-hour; motions contain more blood and slime than yesterday. Complains much of straining when at stool. To have two draughts of ipecacuanha during the day, preceded in the usual way by mustard plasters to the abdomen, and draughts containing tinct. opii, likewise to have two enemata of ipecacuanha with tinct. opii.

21*st.*—On each occasion yesterday, kept the ipecacuanha down for some time before sickness was induced. Did not retain the enemata long. Is still a good deal purged; motions very offensive, consisting almost exclusively of slime and dark blood with shreds of lymph. Suffers much from procidentia ani. Pulse 110, and small. Is very weak. Haustus oleosus.

Vespere.—A large cast of the bowel, about four inches long, came away at stool to-day. He, however, passed one or two large free feculent motions. He says the pain in the abdomen is much less. Pulv. ipecac. gr. xx, pulv. opii gr. j, to be made into four pills, and taken at one time.

22*nd.*—Retained the pills; bowels only once moved since the cast of bowel came away; motion natural; is much better. The pills as last evening, to be taken twice to-day.

23*rd.*—No medicine.
24*th.*—Has not been to the stool since the 22nd.
26*th.*—Says he feels quite well. Bowels moved by oil.
28*th.*—Convalescent.
August 8th.—Discharged to duty.

Time was lost in the treatment of this case, as it was believed at first to be one of diarrhœa only; nor until the motions were examined was the true disease recognized. Sergeant Page has continued quite well up to the date of this report, the 1st of January, 1860.

Numerous cases might easily be quoted from the Hospital Register, but it will probably be deemed equally conclusive to present two short returns, the one embracing the period included by the General Return of 1858, and the other that of the year 1859. In the year 1858 the ordinary treatment practised in India of late years was pursued, consisting chiefly of leeching, preparations of mercury with small quantities of ipacacuanha, opiate enemata, counter-irritants, &c. In the year 1859, the treatment was exclusively that by large doses of ipecacuanha. In 1858, 103 cases of acute dysentery were admitted into the regimental hospital, 7 of chronic, and 5 cases remained over from the previous year, making in all 115. Of these, 14 died, and three were invalided to England, being a loss to the service of something less than 1 in 6 from deaths and invaliding. In 1859, there were admitted 115 cases of acute dysentery, 3 of chronic, and 2 remained over from the previous year, giving a total of 120 treated. Of these, two died and none were invalided, causing a loss to the service by deaths and invaliding of 1 in 60. The return of 1859, therefore, shows a great contrast with that of the previous year, and still more is it deserving of notice, from the fact that of the two deaths recorded in 1859, one occurred in a thin weakly man who had frequently suffered from dysentery before, and the second, though included in the return as dying under the head of acute dysentery, actually died suddenly from heat apoplexy when a patient in hospital for the former disease.

How, then, does this medicine act? A feasible idea appears to be that the portal system is relieved by action upon the liver and small intestines; the free feculent bilious motions would argue this, but then the portal system can be relieved in other ways, yet the dysentery remain uncured. Leeches to the anus will unload the vessels to some degree; mercurial purgations often produce a cholagogue effect, which would tend to relieve the portal

circulation; yet these means do not cure dysentery as ipecacuanha does.

* * * *

Dr. Corrigan, of Dublin, has pointed out the value of ipecacuanha in emetic doses in jaundice. Considerable experience has convinced me of the truth of Dr. Corrigan's statements on this subject, but I have long held the opinion that the ipecacuanha exerted other influence than the mere mechanical effect of an emetic. It appears to me, that no other means so effectually or so speedily produce an action on the liver and small intestines as ipecacuanha, in large doses, without inducing other deleterious effects. Mercury, it is true, acts as a cholagogue, but it also often acts as a drastic purgative. It irritates the inflamed mucous membrane.

In addition to the effects of ipecacuanha just mentioned, it seems to be powerfully sedative. It lowers the pulse and induces diaphoresis, possibly by the nausea it creates. Possibly, in a similar way, may be produced its influence upon the peristaltic action of the bowels, which is often the most remarkable immediate effect. Frequent purging and straining are allayed on taking ipecacuanha, often as soon as one large free motion occurs. It is difficult to suppose that the entire power of the medicine is expended upon this secretion, or that a single motion could give rise to such immense results, unless there was some marked sedative action.

It may be observed, that several subjects connected with dysentery have not been considered in this paper. In the first place, no notice whatever has been taken of chronic dysentery, for the reason that but three slight cases were admitted. They were more properly instances of subacute disease, occurring in men who had, several times previously suffered from dysentery. It is very remarkable that the condition, only second in seriousness to a fatal termination, the lapsing of acute disease into chronic, has been unknown under this treatment. Judging, however, from a pretty extensive experience of chronic dysentery in other years, and from numerous examinations after death, I should be sceptical of the power of ipecacuanha in this condition, if severe. But, under the circumstances of a prolonged dysenteric state, where serious disorganization had not yet taken place, I should not hesitate, even for weakly men, to prescribe ipecacuanha in large doses, and would expect decided advantage. It has, however, been stated to me, by my friend Dr. Brougham,

at one time surgeon at the field hospital in Lucknow, that, after several trials, he could not make a favourable report of the remedy in the advanced stages of chronic dysentery.

No remarks have been directed to post-mortem appearances, as, of the only two fatal cases, one died in the field when the regiment was in pursuit of the enemy, and it was not possible at the time to make an examination. In the second, the man died of heat apoplexy suddenly, and, though an abnormal state of the mucous membrane was found, still it was not to such an extent as could have produced death.

No reference is made to the treatment of women and children for dysentery with ipecacuanha, as those belonging to the regiment have not yet arrived from England. In one respect only does it strike me that this remedy would be inapplicable to women. If dysentery attacked pregnant women, the sickness and vomiting so frequently induced by large doses of ipecacuanha might be attended with serious consequences.

Ipecacuanha, as a cure for acute dysentery, deserves a passing recognition in some other relations. It is quick in its action, saving the constitution from the injury of a tardy convalescence. By its adoption, the old plan of exhibiting mercury, often pushing it to ptyalism, will, I believe, be rarely requisite. General bleeding, or even leeching, will be much less frequent. It has never occurred to me, since I have adopted this remedy, to be obliged to draw blood, either generally or locally.

I am informed that some surgeons in this country are in the habit of meeting severe local pain and other symptoms by the application of leeches, in addition to the exhibition of the ipecacuanha, and speak favourably of such treatment; but I have no practical knowledge as to the advantage of this plan. How far dysentery, prevailing with any dyscrasic state of the constitution, as was so commonly the case at one time in the Crimea during the Russian War, would be under the influence of this mode of treatment, I can offer no remarks from experience. At that period a scorbutic taint so imbued the constitution, in many cases, that the complication of two diseases in point of fact was present, each tending to aggravate the other. But, setting aside such questions until experience shall have solved them, what a benefit to Europeans in tropical climates, what a saving of soldiers to the State, if ipecacuanha, on still further trial in India, shall be found to possess, even in a

less degree than appears to me to belong to it, a curative power over a disease hitherto so unmanageable and dreaded amongst Europeans. It may be that the type of disease in India may differ in other years, and, as the recent mutinies have caused an influx of fresh regiments to the country, that the constitution may alter from longer residence in a relaxing climate. I trust, however, that the success of this remedy will not diminish; but rather, that further experience in its administration will obtain still greater certainty of its power. A hopeful argument is the general subscription to its merits by nearly every medical officer with whom I have conversed on the subject.

V.

Fissure of the Cæcum and extravasation of Fœces: Peri-cæcal Abscess, and discharge through the Bowel.

By WM. SLY, Esq., *Assistant-Surgeon, 2nd Battalion, 16th Regiment.*

Corporal J. A., 2nd Battalion, 16th Regiment, an Englishman, aged 30, 1½ years' service, tolerably stout, but of strumous diathesis, and delicate aspect; admitted into Hare Park Hospital with circumscribed peritonitis, on the 1st July, 1859.

Since enlistment, has led a sedentary life, having been employed as orderly-room clerk; has long been troubled with a slight cough, and has been twice under treatment for chronic catarrh. On the 29th June, after making a hearty meal, he walked quickly over the Curragh, and, on stooping low, in order to pass under a fence, he suddenly felt intense pain in the right iliac region. He was unable to sleep that night, and the next morning was detained in hospital. Turpentine stupes were applied, and calomel and opium administered; subsequently, a blister. In a few days, when he was able to bear manipulation, I discovered a tumour, as large as the closed fist, between the ileum and umbilicus, which I diagnosed as peri-cæcal abscess, but ordered him injections of warm water, to ascertain the presence of scybalæ in the large intestines. A few lumps of hardened fœces came away, but the greater part of the evacuations were natural.

On the 7th July, I opened an ischiatic abscess, which discharged freely up to the date of the man's death.

On the 14th July, as all peritonitic symptoms had disappeared, the case was re-admitted under the head of Tumor Abdominalis.

Towards the end of the month, colliquative diarrhœa supervened, for which disease he took sulphate of copper with opium, and acid mixtures. The respiration at the apices of the lungs, which had hitherto been harsh, now became moist in its character. From the first to the 15th of August, the tumour steadily decreased in size, until it could no longer be felt, and, simultaneously with this diminution, the stools contained a large quantity of pus.

He rapidly lost ground under this complication of disorders, and died, completely worn out, on the 23rd August, at 11·30 P.M.

Autopsy twenty-four hours after death.

Lungs.—Both apices closely studded with tubercle; one cavity; some difficulty in getting out the lungs, from old adhesions.

No fluid in the pericardium; heart flaccid and fatty; no valvular disease.

Abdomen.—Liver pale, of normal size; gall-bladder distended with bile.

Spleen large, firm, lardaceous.

Kidneys in the first stage of granular degeneration; two or three small cysts in the left one.

Omentum dotted with miliary tubercles.

A few scrofulous ulcers in the ileum.

Two ulcers in the cæcum, one of which communicated with a cavity formed by the adhesion of omentum to the parietes of the abdomen in front and behind. The pus, which had formerly filled this cavity, must have escaped into the bowel, through the enlarged ulcerated opening, for the abscess was nearly empty.

Observations.—From the history of the case, and result of the autopsy, there is little doubt but that the strain produced by the man's suddenly assuming the stooping posture caused extravasation of a small quantity of fæces, through a minute opening in the ulcerated and attenuated wall of the intestine; that this escaped matter had been circumscribed by adhesive inflammation; and that, subsequently, the contents of the abscess thus formed had been discharged into the intestine through the same opening, further enlarged by the process of ulceration.

VI.

Case of Pleurisy, terminating in Empyema, Purulent Deposit in the Brain, and Paralysis.

By FREDERICK ROBINSON, M.D., M.R.C.P., *Battalion Surgeon, Scots Fusilier Guards.*

A young soldier of the 2nd Battalion, aged 22, and of a somewhat delicate constitution, who had very recently been discharged from hospital after treatment for syphilis, was readmitted on the evening of December 22nd, complaining of pain in the left hypochondriac region, accompanied by no pyrexial symptom except a slightly furred tongue. There was no tenderness on pressure over the abdomen, and he appeared to be suffering from an ailment rather frequent among soldiers—indigestion. He was ordered a dose of calomel and Dover's powder, followed by castor oil.

On the following morning he had derived no relief from the free action of the bowels, and he referred the pain to the region of the left false ribs. On examination, marked dulness and absence of respiration in the lower half of left lung existed in front and behind; there was no evidence of disease on the right side. He was cupped to a small extent, the pulse not warranting greater depletion, and calomel with opium in medium doses exhibited every second hour. The disease was then diagnosed as "sub-acute pleurisy with effusion."

On the 29th, the effusion had increased, and, except in a small portion of the apex of the lung, the respiration was quite inaudible; and the dulness general. The intercostal muscles scarcely acted at all, and the heart was evidently displaced to the right side. The gums were slightly affected by the mercury; tongue moist, skin cool; not much dyspnœa present; sputa scanty. The pain was relieved by the cupping. Complained of sleeplessness.

After this date he continued to improve under a treatment comprising a combination of mercury in alterative doses with Dover's powder, large blisters, and subsequently —the urine being turbid and loaded with lithates—alkaline diuretics with squill and digitalis. His strength was supported by beef tea and arrowroot.

On the 10th of January, the report described him as being much improved, and he was allowed to get up in the ward for a couple of hours daily. The respiration had gradually become audible, but still considerable dulness existed at the base of the lung. Although the dyspnœa had never been distressing, at times the breathing became more laboured for short intervals, independently of any exertion.

On the 14th, he was not so well; his appetite, previously good, became impaired, and his strength diminished. He was ordered to remain in bed again. The stethoscopic signs, however, continued so far satisfactory, that the respiration remained more distinct, and dulness less extended. The urine, notwithstanding diuretics in various forms, was scanty and turbid. He was ordered decoction of bark with iodide of potassium and bicarbonate of potass, the blisters being at the same time kept open, and his strength supported by nutritious diet, porter, &c. For some days previously he had been taking tolerably full doses of morphia, with but partial effect in causing sleep. The wakefulness was not attributed to any uneasiness in the chest or distressing symptom of any kind. He remained without any material change in his state until the morning of the 23rd, when the orderly found him lying insensible at half-past 7 o'clock. He appeared to have rallied soon afterwards and taken food, but at the time I was called to see him, an hour subsequently, I found the left arm and leg quite paralyzed, and left side of face, especially the angle of the mouth, much contorted. The pupils were fixed, dilated, and nearly insensible to the action of light and touch. There was no stertor or even heaviness of breathing, and he answered questions readily and with intelligence, though the articulation was difficult. The seizure appeared to have been preceded by no premonitory symptom of any kind. The left lower extremity was rather less sensitive to touch than the other, and there was certainly a slight diminution in the force of the left pulse as contrasted with the right, and also of temperature in the affected arm, the sensibility in which, however, seemed to be unimpaired. The right pulse was rather quick and feeble. A purgative of calomel was given, a blister applied to the nape of the neck, and arrowroot with brandy exhibited at intervals; subsequently, when the bowels acted freely, decoction of senega with sesqui-carbonate of ammonia. He then regained power in the arm so far as to be able to raise his hand to the head, but he was restless and his strength appeared to be failing, although he took food well.

On the 25th, it was observed that the pupil of the left eye remained fixed and insensible to light, and the eye-ball, to the touch, whilst the right had resumed its normal condition. He had, since the apoplectic seizure, complained greatly of sleeplessness, and begged anxiously for a composing draught to quiet him; and now it was evident he had become rather weak in intellect. He was given a little camphor mixture at bed-time to quiet his mind.

On the 26th, I found he had slept so very little of late that I considered it advisable to give a full dose of morphia, which, however, afforded him but an hour or two's sleep. The chest disease seemed to have been in no degree influenced by the supervention of the apoplectic seizure.

On the 27th, his breathing was more laboured; he was also affected with diarrhœa, and lost for a short time the power of controlling the action of his bowels. This ailment was checked with some difficulty, and not until strong astringents with antacids had been freely administered. At this time the pupil of the left eye became sensible, in a partial degree, to the action of light, but the eye-ball remained unaffected by touch. There had been no change in the paralyzed limb, but there was much less distortion of the face and tongue. He was ordered a full allowance of wine when the diarrhœa set in.

On the 31st January, he had rallied very perceptibly in every respect, the appetite being good, bowels regular, and the respiration easy. He expectorated, tolerably freely, mucopurulent sputa, and there was no tendency to hectic. He became worse a day or two after, less intelligent, weaker, the cough more frequent, but expectoration copious and easily ejected. The respiratory function was carried on so easily (and with so little effort) that it could not have been surmised —judging from appearance only—that the function of one lung was suspended.

On the 9th February, he voided urine involuntarily for a few days, and from this date he gradually, almost imperceptibly, lost ground; his appetite failing, but no other change occurring in his symptoms further than a tendency to perspiration at night.

About the 8th of March, he became subject to paroxysms of dyspnœa, accompanied by fits of coughing, and succeeded by the usual tolerably tranquil respiration. On the evening of the 10th, he was seized with one of these attacks, so severe as to threaten asphyxia, and which passed off in a couple of hours, leaving the patient much exhausted. The question then to be determined was the propriety of attempt-

ing to relieve the patient by tapping the chest. (I should mention that the measurement of the left side exceeded that of the right by three-quarters of an inch.)

The intercostals acted, though very slightly. Although no doubt was entertained that the chest contained pus, the absence of all urgent symptoms, and the ease with which, up to this period, the right lung had performed the respiratory function, had rendered me indisposed to resort to an expedient of so grave a nature and doubtful efficacy as regards the ultimate probable results. I availed myself of the experience of my friend, Dr. Banks, and his opinion, together with that of my colleague, Mr. Turner, being in favour of an operation, this proceeding was determined on.

Whilst examining him more closely, with the view of deciding on the best situation for the introduction of a trocar, Dr. Banks noticed some prominence over the eighth and ninth ribs, in a line parallel with the posterior border of the axilla. On each inspiration, a slight but distinct impulse was evident to the touch, showing that the fluid was seeking exit by absorption of the tissues. The poor fellow's helpless state had rendered me indisposed to disturb him by too frequent examination, and his paralyzed arm covering exactly the position of the somewhat diffused swelling, had prevented me from becoming aware of its existence. This discovery, of course, determined both the site and expediency of the operation, and I passed a trochar obliquely upwards through the tumour. Six pints and fourteen ounces of thick healthy-looking pus, devoid of odour, were drawn off. More fluid evidently remained, but as air was beginning to pass through the orifice on each inspiration, I thought it advisable to place a sponge and bandage over the aperture. He felt faint, and a little brandy and water was administered. Some relief was afforded by the operation, he said; but there was no marked difference apparent in the respiratory function, which, as I have mentioned, in the absence of attacks of dyspnœa, had been performed with but little labour. I did not wish to distress him by a close examination with a stethoscope, but bronchial respiration, to a slight extent, was audible posteriorly near the spine. I may remark that this had existed, but more indistinctly, since his admission. The man remained tolerably comfortable during the day, and took food well. He passed a restless night, and the orifice in the side having closed up, I introduced a director to clear the passage, and between the hours of 10 o'clock A.M. and 10 o'clock P.M., five pints and eight ounces of pus of the same character, but of

slightly offensive smell, were evacuated, with relief to the sufferer.

He was, with much difficulty, persuaded to take some wine and beef-tea, and, as he had rested badly the previous night, a quarter of a grain of morphia was given. He slept tolerably well, but took little nourishment, and early on the morning of the 14th his bowels and bladder acted involuntarily. His strength was evidently failing fast, but by means of nourishment and the mistura vini gallici, given frequently, he lingered, perfectly conscious, and apparently free from suffering, until the morning of the 16th, when he expired at half-past 9 o'clock A.M., four days subsequent to the operation. There was a slight oozing from the orifice from the time it was reopened until death took place.

Autopsy, twenty-four hours after death.—On opening the chest, the heart was found occupying a position exactly beneath the sternum, extending into the epigastrium. The liver, greatly enlarged, reached completely across into the left hypochondrium, and, together with the abnormal position of the heart, effected a displacement of the stomach. The latter was lying low down in the left hypochondrium, bordering on the lumbar region. The left cavity of the chest was converted into a vast sac by means of a thick firm layer of false membrane, reflected over the lungs, which, compressed to the size and thickness of a small hand, lay close to the spine. The surface of the false membrane was covered by a complete net-work of firm, strong, bands, in some parts so regular in distribution as to present the appearance exactly of a miniature rope-ladder. Forty ounces of puriform fluid occupied about one-third of the sac, from which a very offensive gaseous smell emanated. The orifice of the puncture was free, and the diaphragm, though pushed up by the diseased liver, was uninjured. The muscles over the rib were nearly absorbed, and the integument infiltrated with pus; the periosteum was also softened and partly detached there.

The right lung was perfectly healthy, and only slightly congested at the base. The liver, weighing five pounds six ounces, presented the characteristic appearance of cirrhosis; spleen small, but healthy. Both kidneys were in an advanced stage of disease, the structure pale and semi-disorganized, particularly at the lower extremity of the right, where the appearance of a morbid growth, not forming an integral part of the viscus, was presented. The urine had not been tested for albumen, no suspicion of renal disease having been entertained.

On removing the skull, and opening the dura mater, two

ounces of straw-coloured fluid escaped. The vessels on the surface of the brain and the pia mater were congested, and considerable effusion of the same nature existed beneath the arachnoid throughout, The cerebrum was somewhat congested, but firm and healthy, except in the right ventricle, where softening and purulent deposit had disorganized the whole of the corpus striatum.

Remarks.—I apprehend that the disease of the liver and kidneys had existed for a good while, independent of the chest disease, as the patient had been invalided from the Crimea for fever four years ago. He had since led a rather intemperate life. Probably the mercury he necessarily took, although administered cautiously and gently by inunction (his sore being of the Hunterian form), enhanced a somewhat cachectic condition of the body, and, together with the man's own neglect or imprudence, as well as exposure on duty, induced the chest disease. I should remark, however, that he was kept off duty until he declared himself perfectly fit for it and his strength had been tolerably re-established. The disease in the brain was probably a result of blood-poisoning at the time the fluid in the chest became changed to pus. The form of disease was, from the first, of an asthenic type. The tendency of the matter to evacuate itself spontaneously, determined at once the necessity of operating, but the failure of strength was so considerable afterwards that I question whether the man's life was prolonged by the step. The expediency of an operation in such cases is one of grave importance. It may be that, at an earlier stage, it would have been both beneficial and warrantable, although I confess that the absence of distress in the patient's breathing, and of other urgent symptoms, together with the amendment at one time taking place, made me consider the operation inexpedient until nature pointed out the necessity of the step. The complication with disease of the brain I believe to be a rare one, and Dr. Stokes informs me that he has never met with a similar case. It affords me satisfaction to mention the concurrence of this eminent physician in the treatment adopted. He tells me that he has several patients who visit him at long intervals, and who enjoy tolerable health and follow their avocations, although one side of the chest is filled with serum, resulting from chronic pleurisy. In cases where the change from serum to pus is clearly evidenced by hectic and other symptoms, the course to be adopted would be more apparent, but in the present one the indications of such transition were obscure and not reliable.

VII.

Case of Gunshot Wound of the Face (attempted Suicide) with Recovery.

By J. SAVAGE, M.D., *Surgeon-Major, Royal Horse Artillery.*

About 7 o'clock P.M., on the 12th January, 1850, in the tower at Vido, an island opposite Corfu, although two other men were in the room at the time, Gunner J. M. Royal Artillery, made an attempt to destroy himself by attaching a string to the trigger of his carbine, and pulling it with his foot. The ball entered behind the chin, and made its exit at the right ala nasi, causing a ghastly and bloody laceration of all the parts between. The anterior third of the lower maxilla was blown away, with the exception of a couple of teeth and a small piece of thin alveolar process, which remained attached to the everted lower lip: the anterior portion also of the right and part of the left superior maxillary bones, were carried away (the ball having gone through just behind the upper incisor teeth), a small portion, with two incisor teeth, continuing attached to the left half of the upper lip, which remained uninjured. The tongue had escaped, for the ball passed anterior to it, through the sublingual gland. The mouth was blown open, and all the soft parts constituting it, as far upwards as the right ala nasi, were thrown into one bloody, torn, jagged, and everted flap. He was seen immediately, on the island, by Staff Assistant Surgeon Dr. Bone, and Staff Surgeon Humphry. There was a considerable effusion of blood at the time, increased by vomiting which came on; but this, I am told, was gradually restrained by cold water. He was a prisoner, sentenced to extra drill, on account of drunkenness, at the time of the occurrence (his fourth offence since arrival at Corfu); but it was thought, also, that the recent deaths of his mother and sister in Ireland, from the cholera, which was then raging there, and his inability, by reason of intemperate habits of late, to send them the pecuniary assistance which he had been accustomed to do, had been preying greatly on his mind.

In the above state he was brought over to the Artillery Hospital at Corfu, at midnight, and seen by me at once,

when there was still some oozing of blood. Owing to the hæmorrhage, and partly also from the cold of the voyage over to Corfu in an open boat, there was no pulse, but as he became warmer it returned. He was unable to speak, but some drink was given him by the stomach-pump. Cold water was directed to be applied to the wound and face by an orderly constantly through the night.

9 A.M.—No sleep; Pulse, 98; face swelling.

Tea with one-third of milk, given now by stomach-pump, and again repeated during the day.

8 P.M.—Is fortunately able to swallow liquids poured over the tongue by means of a sponge; pulse has risen to 120; some headache and pain about throat; stomach-pump therefore omitted.

9 P.M.—Injiciatur enema catharticum.

January 13.—No sleep; cannot speak; some headache and pain about throat; skin cool; pulse, 84; saliva drivels away a great deal. Liquids are given by a child's glass feeding-bottle, thus, which answers well.

Continue cold-water dressings.

Wound gently approximated a little by a bandage over the head.

8. P.M.—Sumat acetat. morphiæ, gr. ½.

Injiciatur enema cathart.

Affric. linimentum ammoniæ.

Fever diet: 1 pint milk, mutton soup.

January 14.—Slept nearly three hours, and writes on a slate that "he thinks he is much better;" no headache; pulse, 84. Is a good deal inconvenienced by saliva and liquids drivelling and passing out through the bullet hole under the chin. A few small sloughs dislodged from the side of the tongue.

January 15.—Slept three hours; writes that "his breath stinks;" pulse, 74; throat better.

Parts of the wound washed with a weak solution of liq. sodæ chlorinat. et tinct. myrrhæ.

Enema cathartic. h. s.

Fever diet: 1lb beef for soup; milk, 1½ pint; 1 gill port wine.

January 16.—Four and a-half hours' sleep; one sufficient stool from enema; small portion of bone (inferior maxillary) containing two teeth, which was adhering to lower lip by a piece of gum, taken away to-day: and some trifling hæmorrhage from the small nick of gum that was divided.

January 18.—Horribly fœtid odour from sloughs; he writes that "he has more pain;" pulse, 82; four hours' sleep.

January 25.—Had a rigor the evening before last. A small spiculum of bone extracted from lower lip (inside). The wound looking more healthy, and throwing out florid granulations. Takes some thin oatmeal gruel.

Warm resinous dressing to the lower orifice (that of entrance).

The wound of upper lip gently closed with adhesive plaister.

Enema cathart.

Contin. lotio liq. sodæ chlorinat. et tinct. myrrhæ.

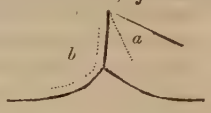
February 2.—Bowels not opened without enema since the accident. The orifice under the chin now healed, and no fluids pass through it. Great loss of saliva all along. A small piece of bone loose, and extracted to-day from the inferior part of the wound. Feels very weak.

All the wounds of upper and lower lip brought together as well as possible. (To have English porter also.)

March 31.—Shortly after the last report, the natural action of the bowels returned, and they have since been opened without enema or medicine. Several small spicula of bone have also come away at various times, and nature is now rapidly completing the healing, and the parts are accommodating themselves as well as the severe injuries which they have received admit of. In furthering this end, the two remaining portions of the lower maxillary bone are approximating in front, and are now within an inch of each other; and the intervening soft parts will, I imagine, get matted and consolidated, so as finally to admit of some useful power of the lower jaw. At present, he is not able to use anything more solid than sopped bread or rice pudding, and although I can understand pretty well what he says, still articulation is very imperfect, by reason of the deficiencies in the lower jaw, teeth, and lips. There is also still much drivelling of saliva from the mouth.

July 4.—No bone has come away since April 4. The jaw is firmly consolidated by callus anteriorly, and there is still a good deal of drivelling of saliva through the deformed fissure in the lower lip; the upper lip also is a good deal disfigured by a hare-lip, which has existed since the part was healed.

For these reasons, therefore, on the 29th June, assisted by Assistant Surgeon Smith of the 36th Regiment, I detached the lower lip from its almost cartilaginous adhesion to the gum, and having done so, I treated it as a hare-lip and brought the edges into as neat contact as the parts admitted, by means of needles and ligatures. The upper lip was then operated on after the more recent improved method. The bistoury was passed through the lip, but not entirely, according to the dotted line in the margin (marked *a*) so that when the little piece of lip was turned down it presented this appearance:—



This latter receives the bit of the other side, which is pared as in the place marked *b*, and the consequence is that the lip is less disfigured than by the old operation. A small piece of lint was inserted between the lower lip and gum to endeavour to prevent too extensive adhesion between them.

The lips were soon healed, and this poor fellow was sent invalided to England, most grateful for all that had been done for him, and thankful that he had been mercifully saved from the destruction he had so wickedly tried to effect.

VIII.

Abstract of Annual Report on the Wounded of the 78th Highlanders at Lucknow in 1857.

By J. JEE, Esq., C.B. V.C, *Surgeon, 78th Highlanders.*

Vulnus Sclopitorum.—268 men have been wounded during the year, of whom 213 recovered, and were discharged to duty, 35 died, 17 were invalided, and 3 remain. Amongst so many wounded, numerous severe and interesting cases presented themselves, but I must limit myself in this place to an abstract of a few cases only.

Hospital gangrene made its appearance amongst the wounded in the besieged garrison of Lucknow; and I have been informed that it was of frequent occurrence amongst the wounded located in the large and airy field hospital, "the Dilkoosha," after the capture of Lucknow, notwithstanding the additional comforts with which they were surrounded. The treatment pursued in simple gun-shot wounds, after arresting hæmorrhage, and after removal of all foreign bodies, consisted in sponging the wound clean, and applying a compress wetted with cold water, retained in *situ* by one or two turns of a bandage, and constantly kept moist. The wounds were dressed twice daily; tremor and mental disturbance were allayed by the administration of a small quantity of spirits, or spirits and water, and if severe by an opiate. At first the patient was put on farinaceous diet, and, if symptoms of inflammation appeared, antiphlogistic treatment was had recourse to.

In the treatment of hospital gangrene, our chief reliance was on quinine, ammonia, camphor, opium, and spirits (as neither wine nor beer were procurable), and on the best diet that the besieged garrison afforded. There was no possibility of moving the patients away from the sphere of contamination. Opium or morphia, either alone or in combination with bark, are, I consider, our sheet-anchor in this disease. Nitric acid was also applied, and on the sores assuming a healthy appearance the nitric acid and opiate lotions, and basilicon ointment with turpentine, were found beneficial.

Private Michael O'Donnell was wounded during the action of Cawnpore by a musket-ball which entered at the upper part of the left side of the thorax, a little above the

nipple, and made its exit close to the left side of the spine, and near the fourth dorsal vertebra, the spinous process of which was laid bare. There was considerable nervous shock, followed by a tendency to syncope, and subsequently dyspnœa and hæmoptysis, with dulness on percussion over the left side of the chest; he was treated with nauseants, counter-irritants, and purgatives, under which he progressed favourably, and was enabled to accompany the sick and wounded who proceeded to Allahabad for change of air on the 27th August.

Private John Kennedy was wounded as the force entered Lucknow on the 25th September, 1857, by a musket-ball, which entered the chest about two inches below the middle of the right clavicle, passing out nearly in a similar situation on the opposite side. There was considerable hæmorrhage and pain on the receipt of the wound, but little or no nervous shock. No fracture of the ribs could be discovered, although the ball had entered the cavity of the chest. The patient was treated with opiates and antimonials; cold water dressings were applied to the wounds, and the chest supported by a broad bandage. On the 26th he was seized with a severe cough, with bloody sputa, but the wounds presented a healthy appearance until the 29th, when they became infested with maggots, which were removed by the employment of turpentine dressings; the wounds then improved, and the cough and sputa abated, but the patient became weak and emaciated. On the 14th of October, hæmorrhage suddenly took place from the wounds, which, notwithstanding every mode of treatment adopted, recurred at intervals, and he expired on the 19th of the same month.

Private Owen Carroll was wounded during the entrance into Lucknow, on the 25th September, by a slug, which entered about a quarter of an inch above the sternum and a little to the right side. There was scarcely any hæmorrhage or constitutional disturbance on the receipt of the wound, which was so small that it would not admit the little finger; a probe, however, could be passed readily into the cavity of the chest. Cold water dressings were applied to the wound, and a bandage round the chest, but subsequently symptoms of inflammation within the cavity supervened, which were combated by means of calomel and opium, with purgatives and a farinaceous diet; but hæmoptysis and purulent expectoration occurred, and on the 7th of October he complained of pain at the upper and inner part of the right scapula, where a fluctuating swelling soon afterwards appeared, in which an opening was made on the 25th, and

about half-a-pint of dirty-looking highly-fœtid pus evacuated. The wound in the throat nearly healed, but matter continued to form in the neighbourhood of the opening in the back, requiring several fresh incisions; and the patient becoming rapidly exhausted, died on the 25th of November at the Alumbagh. There was no opportunity for a post-mortem examination.

Private John Brock was wounded during the entry into Lucknow by a musket-ball, which entered about four inches on the left side of the ninth dorsal vertebra, and made its exit, in a straight line, near the spine on the same side. There was also another wound from a musket-ball, which entered on the right side of the vertical column, nearly on a line with the place of entrance of the former, and had the appearance of having passed through the body, as the wound caused by its exit was in the centre of the right side, between the seventh and eighth ribs, but, on examination, the finger could not be passed into the cavity of the chest, neither could any fracture of the ribs be discovered. There was hardly any nervous shock on receipt of the wounds, and little or no hæmorrhage. Cold water dressings were applied, also a bandage round the chest, while salines and a spare diet were administered. With the exception of slight sloughing of the wound in the side, the patient recovered without a bad symptom, and was discharged to duty on the 26th of December, 1857.*

Drummer James Murray was wounded at Lucknow on the 20th October, by a musket-ball, while engaged in digging earth to fill sand-bags for a barricade, being at the time in a stooping posture. The ball entered the neck, behind the right ear, making its exit about an inch and a-half lower down, and being very superficial in its course; it again entered behind the middle of the right clavicle, which it fractured, and, traversing the thorax, passed out between the eleventh and twelfth ribs. There was considerable nervous shock on receipt of the wound, and some hæmorrhage, but there were neither cough, dyspnœa, nor hæmoptysis; there was some emphysema round the margin of the wound, behind the clavicle, and a few bubbles of air escaped with the blood. A little rum and water was administered to rally the patient; cold water dressings were applied to the wounds, a wedge-

* Mr. Jee states, in his Annual Report for the following year:—"This patient, while stationed at Bareilly in the following summer, was attacked with acute hepatitis, which terminated fatally in abscess of the liver on the 2nd July; the abscess was found to correspond with the cicatrix of the wound received at Lucknow the previous year."—H. M.

shaped pad was placed in the right axilla, and the shoulders braced back by a figure of 8-bandage. A bandage was likewise applied round the chest, and an opiate administered, followed by the solution of tartarized antimony, the state of his pulse not admitting of depletion. On the 21st he had experienced a very restless night, his pulse being quick and small, and the skin hot and dry. He had a great desire to cough, but could not do so on account of the pain it produced; he also expectorated a small quantity of blood. He was bled to the extent of 20 oz., and calomel and opium administered along with the tartrate of antimony. On the 22nd he expresed himself as feeling greatly relieved; there was scarcely any pyrexia, but the pulse was quick, and the hæmoptysis had increased. The wounds looked healthy, and discharged a serous fluid, tinged with blood. The antimony and calomel were continued, and small portions of bone were removed from the wound behind the clavicle. The patient appeared to progress favourably until the 26th, when considerable hæmorrhage occurred from the wound in the shoulder, the other wounds assuming an unhealthy appearance; the hæmoptysis also increased, and he suffered much from a painful cough.

The external hæmorrhage having been arrested by a graduated compress and bandage, he improved somewhat until the 4th of November, when the hæmorrhage from the wound behind the clavicle returned, followed next day by fever and distressing cough. The administration of antimony was resumed. Next day, the 6th, the cough had become worse, and he expectorated a quantity of grumous-looking matter; pulse, 115, small; skin hot and dry, and he could only lie on his back supported by pillows; to have calomel and opium, and a full opiate at bed-time. On the 7th all the symptoms above enumerated continued unabated, and hæmorrhage took place from the wound in the side. The patient died on the 8th November. On examination, after death, the right lung was found to be completely disorganized, the pleura costalis thickened; the second, third, and eleventh ribs were found fractured.

Private Robert Goodwin was wounded during the siege of Lucknow, on the 8th of November, while he was on sentry at a loop-hole, by a musket ball, which entered about an inch posterior to the frontal and a quarter of an inch on the left side of the sagittal suture, running along the parietal bone of the same side for about an inch and a-half, directly parallel with the sagittal suture, causing a wound of the scalp of the same length and a quarter of an inch broad,

which exposed the bone, and likewise caused an irregular depression of the cranium about an inch long and a quarter of an inch broad. On receipt of the injury the patient became immediately insensible; pulse 56, slow and regular; breathing stertorous and laborious; pupils slightly dilated and insensible to the stimulus of light; the skin was cool, and there were some spasms of the arms. After consulting with several medical officers who where present, I proceeded, being aided by Assistant-Surgeon Clarke, of the Company's Service, to remove, with the trephine, a portion of bone near the depressed surface, on removal of which the internal table was found much splintered, but the dura mater uninjured and of a healthy appearance. There was a considerable amount of venous hæmorrhage The fragments being removed and the edges of the divided scalp having been brought into apposition by a few points of suture, cold-water dressing was applied. The pulse rose to 78 immediately after the operation, and the respiration became quiet and regular. Ten grains of calomel were then administered, and were followed by a purgative enema; and about an hour and a-half subsequently the pulse rose to 100, the skin became hot and dry, and the patient opening his eyes looked about him, and made an attempt to rise in his bed, his arms being slightly convulsed. He was immediately bled to the extent of about 20 ounces, and orderlies were placed beside him to prevent him from leaving bed. The blood presented a cupped appearance. Four hours afterwards the pulse had fallen to 84, weak; skin warm and moist; pupils less dilated, and not so sluggish.

At my next visit, about five hours afterwards, he was in much the same state, and lay on his back, with his eyes open, looking round him like a person waking from sleep. Ten more grains of calomel were administered; bowels freely moved by the enema. On the 9th he was quite sensible, and had dozed during the night; said that he felt cold, and that his head was heavy, also that he did not know how and where he was wounded, or how he came to be in hospital. Pulse 100, labouring; skin cool and perspiring; tongue furred, yellow, and moist. He had spat out the calomel given him on the previous evening. The wound appeared quite healthy. I now ordered 3 grains of calomel to be given him every two hours, and another purgative enema immediately. On the 13th he complained of his mouth being sore, there was slight mercurial fœtor, and the calomel was therefore discontinued. The pulse was 80, soft and regular; his bowels acted well, and he took his diet, consisting of arrowroot and

broth, with apparent relish. He continued to progress favourably, until the evening of the 18th instant, when, having been exposed to fatigue during the journey to the Dilkoosha, he complained of severe cold, and shortly afterwards expired, probably from exhaustion.*

"Private Joseph Hendry, 78th Highlanders, was wounded on the 14th October, 1857, during the siege of Lucknow, by a round shot, that shattered his left leg above the ankle. There was considerable pain, and some amount of constitutional disturbance; I, however, after administering a little rum (which was the only stimulant we could obtain during the siege, and of that the smallest possible supply, although it was reserved for the sick and wounded), proceeded at once to remove the limb below the tuberosity of the tibia by the flap operation, the patient having been placed under the influence of chloroform. The anterior tibial and peroneal arteries required ligatures, and five sutures were inserted, very little blood having been lost during the operation. He did well, notwithstanding the tuberosity of the tibia exfoliated to some extent. The stump and ulcer over the tibia had nearly healed when he left Alum Bagh, on the 27th November, with the sick and wounded, for Cawnpore; and he was subsequently invalided to England, with an exceedingly good stump, and being able to walk any distance.

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* Mr. Jee writes: "On the 18th November, a large number of doolies having been sent into the garrison from the camp of the Commander-in-chief, who had succeeded in effecting a communication with us; the sick and wounded (those of the 78th Highlanders, amounting to 5 Officers and 58 men), some in doolies and others on stretchers, were conveyed at 11½ o'clock P.M., under a strong escort, to the 'Dilkoosha,' where the Commander-in-chief was encamped. The night was very cold; and, in consequence of its being dark, some difficulty was experienced in finding the road, so that the Dilkoosha was not reached until about 3 o'clock A.M., on the 19th, when I found that the building was crowded with sick and wounded, and that no provision had been made for the accommodation of those from Lucknow; they did not, therefore, get under cover till nearly 3 o'clock, P.M., as elephants had to be dispatched to Alum Bagh, a distance of about three miles, to fetch tents; but I succeeded in getting some of my worst cases under cover in the out-building of the Palace, and the 9th Lancers kindly gave up their mess-tent for the use of the wounded Officers."—H. M.

IX.

Extracts from the Monthly Reports from Chatham during the Year 1859, furnished by J. R. Taylor, Esq., C.B., F.R.C.S., Inspector-General of Hospitals, Honorary Surgeon to Her Majesty.

January 1859.

Ten cases of wounded arrived from India during the month. In one of them, where the middle finger had been amputated after gunshot wound, Surgeon-Major Matthew removed the ring-finger on the 16th, in consequence of its contracted and diseased state. The wound is now all but healed, and the remaining part of the hand will be serviceable.

Amongst the re-admissions of wounded from India, is a case of abnormal anus, the result of gunshot wound perforating the left ilium, and wounding, probably, the descending colon. The subject of this injury, Private Cornelius Hogan, 32nd Regiment, landed from India in June last, and an account of his case is given in the report of the wounded arrived here during that month. He was transferred from Fort Pitt to Yarmouth Hospital, on the 4th July last, and thence sent to the depôt of his regiment, which he joined on the 28th October. He was tried on the 9th of December, and sentenced to "forty-two days' imprisonment at Fort Clarence, with such labour as the surgeon in charge might consider him capable of performing without risk." It seems, however, that previously to appearing before the medical officer he had to undergo more than an hour's shot-drill, by which the wound was re-opened. He was consequently sent to the Garrison Hospital on the 18th of last month, and transferred to Fort Pitt on the 29th. This is the only case of the kind, of distinct gunshot perforation of the contents of the abdomen amongst the wounded, during the late mutiny in India, that have arrived up to the present date.*

* A somewhat similar case remains under treatment in Guy's Hospital from amongst the invalided (wounded) from the Crimea. The case is that of Private James Beehan, of the 19th Regiment. In a note dated 21st of January this year, Mr. Birkett says, in reply to an inquiry as to the progress of this case:—"James Beehan, the discharged soldier, with artificial anus in the left loin, the result of a bullet wound, is now in Guy's. He has since my last report suffered with severe attacks of albuminuria, and is anasarcous." Particulars of this case are to be found in the *Lancet*, vols. i. and ii. for 1855, and in various medical reports from this station from 1855 to 1857.

Private Cornelius Hogan enjoys at present very good health, but being now obviously unfitted for the service by result of his wound, will be transferred to the Invalid Depôt.

Feb. 1859. During the month, thirty-nine wounded have arrived from India, including the following cases of amputation after gunshot wound :—

1 of Thigh (middle third).
1 „ Leg (5 inches below knee).
1 „ Arm.
1 „ Forearm.

The two following cases are of special interest :—

"Private Peter Jack, 79th Regiment, was wounded on the 19th March, 1858, near Lucknow. The bullet entered the back, 3 inches to the right side of the spinous processes of the vertebræ ; and about 2 inches below the level of the angle of the scapula, and made its exit 4½ inches to the right of the middle line, and 4 inches above the mammilla in front of the chest on the same side. The wound is stated to have been followed by severe pleuro-pneumonia and much dyspnœa, with hæmoptysis, for which he was repeatedly bled. The surgeon seems to have thought that the lung was wounded (and doubtless a direct line from entrance to exit would pass somewhat deeply through the lung), but this appears to be doubtful, as both the openings healed about two months after the infliction of the wound. The skin in neither situation is depressed or adherent, and the lung now works quite normally, while the man's general health is excellent."

"Private Michael Cassidy, 1st Battalion 10th Regiment, was wounded on 11th May, 1858, by a musket ball, which passed through the left upper arm, about 3 inches above the elbow joint, over the biceps muscle. This seems to have been a flesh wound, which is now soundly healed, but some loss of power of the hand remains. The ball then entered the left side of the belly, about 3 inches above the crest of the ilium, and made its exit in the left loin about 2½ inches to the left of the spinal column, on about the same level, wounding the colon in its passage. The wound of entrance is soundly healed, but that in the loin remains open, and fæces and flatus still pass through it, and have continued to do so since the receipt of the wound. His gums at present bleed easily, and are dark coloured. He also complains of diarrhœa and passage of blood with prolapsus ani. Has a pile just within verge of anus. Aspect, that of bad health."

The preceding is the second case of abnormal anus by gunshot perforation of the intestine arrived amongst the invalided wounded from India. Both cases are now in Fort Pitt. The first case, that of Private Hogan, of the 32nd Regiment, was noticed in last month's report. In Mr. Matthew's report, he observes, in Hogan's case, that the fistulous opening has again closed. The 2,296 cases of wounded received at Chatham from the Crimea furnished only one such instance, viz., Private James Beehan, 19th Regiment.

It is worthy of note, that in all these cases the abnormal anus is on the left side. In Cassidy's case, however, the wound is not complicated, as in Beehan's, with injury to the

vertebra, and probably also to the kidney, nor with perforation of the ala of the ilium, as in Hogan's case.

Operation for the radical cure of Hernia.

Two of these cases were noted last month; the results, it is to be feared, will disappoint expectation. There can be no doubt that in three of the cases the digital fold of scrotum, which was carried up through the external ring, has by degrees wholly unfolded itself, notwithstanding due care and sufficient retention of the needle and of the plug, and the lubrication of the latter with blistering ointment before introduction. Mr. Matthew, who was the operator in these cases, reports of them as follows:—

"Hernia inguinalis.—Two remained from last month, on which the operation known as 'Wützer's' for the radical cure of the complaint was performed. In both these some protrusion of the gut into the canal, but not through the external ring, occurred on the thirty-eighth and twenty-fourth days after the respective operations; in each case a truss has been applied, and no return of the protrusion has since shown itself in either, but the full success of both, as fitting the patients for the active duties of a soldier, must so far be considered very doubtful. Six more cases of inguinal hernia have been admitted, two of which have likewise been submitted to the operation, with better prospects of complete success. A third was complicated with hydrocele, which has been tapped, and injected with iodine before adopting any further proceeding. A fourth is complicated with broken health, the result of Mediterranean fever. The subject of the fifth, is fearful of submitting to any operation, and the sixth has been invalided, being affected with incomplete rupture of both sides, with general laxity of the wall of the lower and lateral parts of the abdomen."

March 1859.

The thirty-nine wounded arrived during this month furnished only one case of much interest. The patient, Private John Fraser, 93rd Regiment, had been shot through the shoulder joint. The wound was open, and from the state of parts, Mr. Matthew found it necessary to perform the operation of excision of the head, together with $2\frac{1}{2}$ inches of the shaft, of the humerus. The operation was performed on the 17th March, and the patient is doing well.

Staff-Surgeon Dr. Williamson, lately in charge of the surgical division, noticed in his reports the number of apparently preventable cases of contraction from various stations, but particularly from on board ship, and amongst the wounded from India. By forcible extension of the limb, with or without the use of chloroform, he found a large proportion of these cases readily curable, and that in the remainder some improvement could generally be effected by the same means.

In the following remarks on the same subject, by Surgeon-Major Matthew, in his surgical division report for this month, I quite concur:—

"*Contractura.*—Three remained—three admitted. None of the cases

thus returned are the result of wounds; but I cannot here forbear to notice the frequent frightful deformity presented on arrival at this hospital, more especially in men from India after gunshot wounds, and other wounds and injuries, which, it appears to me, a very small amount of attention on board ship during the voyage, might have altogether prevented. This condition has frequently necessitated the division of the tendons by sub-cutaneous section, and more frequently still has required much patience on the part of the surgeon here, or the exhibition of chloroform, and some frequent suffering on the part of the invalid, in order to partially remedy what should have never been allowed to occur. It is probably true that the injuries in question were all healed before the men were put on board ship, and thus it has, no doubt, been considered that these invalids required no surgical care."

Rupture, case of cure by Wütz er's operation.

In only one of the four cases of rupture, in which Wütz er's operation was performed, has the result been successful. The case is that of Private William Coombs, 2nd Battalion Military Train. "No return of the hernial protrusion occurred, and this soldier was sent to his duty forty-two days after the operation. But here, as in the other three cases operated upon, the invaginated portion of skin has unfolded completely." In another of these cases the soldier has been returned to his duty, but wearing a truss, the gut having protruded again on the 16th day after the operation.

To the notice here given of these cases, Mr. Matthew adds, "It will probably be worth while to try what can be effected by Wood's operation, which consists in drawing together the two pillars of the canal after a sub-cutaneous incision."

April 1859.

Seventy-one wounded have arrived from India since last report, making the total wounded by the mutiny hitherto arrived at Chatham, 674. Of this number, 166 are cases of amputation; and six of these, as follows, are included amongst the seventy-one wounded received during the month:—

Arm	..	1	
Fingers	..	1	
Thumb	..	1	
Thigh	..	1	at junction of middle and upper third.
Leg	..	1	
Toe	..	1	
Total	..	6	

Surgeon-Major Matthew, in his monthly report, notices the following interesting cases amongst the seventy-one recent arrivals:—

"Private Joseph Mumford, 42nd Regiment, was wounded at Lucknow, in March 1858. A bullet entered the right side of his neck, about $1\frac{1}{2}$ inches above the sternal articulation of the clavicle, and was extracted from the opposite side of the neck, behind the centre of left clavicle. The trachea was injured, and the patient spat blood for seven or eight days, and air made its

escape through the opening of entrance. The right brachial plexus was also injured, and, although the wounds are long since healed, all the fingers of the right hand, on admission, were quite useless. They were firmly fixed in the straight position, and any attempt at bending them gave intense pain in the course of the median nerve. The hand was cold, affected with nervous tremors, and all the fingers more or less numb, although both the sensation and motion of the thumb remained. Passive motion and careful bandaging promise to restore a considerable use to the hand."

"Private William Anderson, 61st Regiment. This is a distressing instance of complete loss of both testicles following shell laceration of the scrotum. The posterior part of the scrotum was torn away, and the testicles, which were, at the same time, severely bruised, laid bare. They subsequently sloughed, and separated."

"Private C. Leigh, 75th Regiment, has a most useful arm, although, as a consequence of a gunshot compound comminuted fracture of the ulna, there remains an interval of an inch between the fractured ends of the shaft of that bone."

"Private William Cunningham, 1st Battalion 8th Foot. An instance of compound comminuted gunshot fracture of the femur. This is a very unfavourable example of the results of treatment of this description of injury without amputation. The limb is only an incumbrance. The shortening is from 4½ to 5 inches, and there is great deformity from the union of the fractured ends, which are in the middle third, being exceedingly irregular, with the upper end nearly projecting through the integuments. The knee and ankle joints are almost immoveable."

"Private James Moore, 1st Battalion 24th Regiment, wounded at Jhelum, 7th July, 1857. A ball entered the left groin, and made its exit at the buttock, injuring the great trochanter. It is doubtful, at present, if the whole of the head and neck of the femur are not necrosed. If so, resection will afford the man the only chance of recovery."

"Private George Steptoe, 75th Regiment. This case may be noticed from the peculiarity of a circular healed cavity, at the upper end of the tibia, remaining after gunshot perforation of the cancellous head of that bone. This cavity is 1¼ inch deep, lined with quasi cuticle, and broad enough to admit a large-sized goose-quill."

"The case of Private Frederick Drake, 1st Battalion 60th, is noteworthy, from the fact that, although close anchylosis of the femur and tibia have followed a gunshot wound of front of right thigh, subsequently to which abscesses and sloughing took place, yet the patella still remains freely moveable."

Besides the seventy-one wounded from India above noticed, there have also arrived three cases of gunshot wounds from China, and an invalid by gunshot wound received at the battle of Maharajpore in 1843. In the last case a canister shot had been lodged ever since in the superspinous process of the right scapula, only latterly creating much inconvenience. The shot was removed by Mr. Matthew on the 9th of the present month.

Fifteen wounded by the mutiny in India have arrived during the month, including two cases of amputation,—one of the arm and the other of the forearm. May 1859.

Surgeon-Major Matthew reports that several contractions

of limbs after gunshot wounds have been rectified this month.

Besides the two instances of amputation above noticed, the following cases, not occasioned by wounds in action, were admitted this month, viz., one finger case after accident, one arm case after accidental gunshot wound at target practice, one fore-arm case after fungous growth from the hand.

Radical cure of Hernia.

In consequence of the indifferent success attending Wützer's operation, noted in previous reports, Surgeon-Major Matthew, in charge of the surgical division, Fort Pitt, was induced this month to make trial of Wood's operation for the radical cure of hernia. He accordingly performed the operation in three instances, and he reports:—"Two of these promise to succeed perfectly, but one patient unfortunately died from peritonitis. The details of these cases are as follow:—

"Colour-Serjeant Titus Hurst, age 42, 45th Regiment, 21½ years; admitted at Fort Pitt, 7th May, 1859, with a right oblique inguinal hernia of moderate size, extending into the scrotum, contracted in Dublin in 1841. Had systematically worn a truss. The operation performed on 11th May, 1859, under chloroform. The suppuration was moderate, and the constitutional disturbance very little. The ligatures were removed on 17th May (end of 6th day), and the wound healed satisfactorily, but slowly. Result, a cure, although, at the date of his discharge, slight fulness of that groin appeared on cough; directed to continue to wear a compress and bandage for at least a month. He was discharged the service, having completed over 21 years' service.

"Private Isaac Norris, 2nd Batt. 60th Rifles; age, 26; service, 8 years and 3 months. Admitted at Fort Pitt, 7th May, 1859, for right oblique inguinal hernia of moderate size, extending into the scrotum, contracted at the Cape of Good Hope on Government works, in 1854. Had systematically worn a truss, but the hernia frequently came down, even when the truss was on; operation done 24th May, 1859, under chloroform; very free suppuration followed in the case, chiefly from the external needle puncture; (he was in the same ward as case No. 3, which ended fatally). The character of the discharge, healthy pus, and unattended with any very appreciable constitutional disturbance. It appeared to come from among the fibres of the external oblique muscle. The ligation was removed on the 29th May (end of 5th day). He was kept in the horizontal position, with compress applied, till the 11th June, when he was allowed up, with compress still applied. On 30th June,—that is, 37 days after the operation,—the gut again PARTIALLY protruded into the canal, and a light truss was put on, but it was considered by the Inspector-General that he would not be fit for further soldiering, and he was discharged the service on 8th July. Although not a perfect cure, this man was much benefitted, as the truss (a very light one) now retained the gut perfectly, and there had previously been great difficulty in keeping it up by any appliance, and I should even hope that a cure may have ultimately followed.

"No. 3,932 Private Joseph Emery, 2nd Battalion 60th Rifles, age 23, service 5 years and 2 months, invalided home from the Cape of Good Hope on account of right oblique inguinal hernia, contracted on the Government works in that colony in the year 1856. He was admitted into Fort Pitt Hospital on the 7th May, 1859: the hernia was of moderate size, and extended into the scrotum. He had always worn a truss, which, however

he stated did not always prevent the bowel from descending. On the 24th May, Wood's operation for the radical cure of the disability was performed at noon, the patient being under the influence of chloroform. His bowels, three days previously, had been well cleared out by a dose of castor-oil. In the evening he did not complain of much pain, but an opiate draught was administered.

"*May* 25.—Slept well last night, and now makes little complaint, except of slight cough, which causes some pain in his right groin. The draught to be repeated at night.

"*May* 26.—Is somewhat feverish, but is perspiring slightly about the head and neck; tongue a little furred; cough continues, but is not violent, and is unaccompanied with expectoration. Complains of considerable pain and tenderness about the lower part of the abdominal wall, referred chiefly to the central portion of the hypogastrium. The parts in the right groin are somewhat painful, but not so much so as at the spot above indicated. There is no tenderness of the upper parts of the belly; has had no motion since the operation. Compress and bandage not disturbed.

"*Vespere.*—Still slightly feverish; in fact, much the same as in the morning; opiate repeated.

"*May* 27.—Easier and less feverish, but says he slept little through the night; still complains of pain in the lower part of the abdomen. Bandage and compresss removed; no irritation from the suture in the scrotum (which had been inserted on the completion of the operation); it was, therefore, not disturbed; the aperture through which the ligature emerges looks healthy enough. Belly slightly tense from contained air, probably due to the bowels not yet having been moved. The tenderness in the lower part of the belly persists, and extends more towards the left groin. Tongue slightly coated; urine scanty, and high coloured. The attendant reports that he has made use of but little food since the operation. The compress and bandage re-applied.

"*Vespere.*—About 3 o'clock he vomited twice a small quantity of dark-coloured fluid, which was supposed to be some beef-tea he had taken some little time previously, and he said he felt better afterwards. About 5 o'clock the orderly officer was asked to see him, as he had become much worse. He reported that he found him in a state of partial collapse, which was stated to have come on very rapidly. The pulse was very weak, rapid, and compressible; the skin moist and clammy, inclining to cold; the eyes sunk and surrounded by a dark areola, and he was vomiting a dark-coloured fluid like porter. Some brandy and water was ordered, and I saw him about 7 o'clock; he was then much in the state above described. The belly was very tense and tympanitic; the cough continued, and mucus had begun to collect in the air passages, and the whole surface of the abdomen was excessively tender. It was evident that acute peritonitis had been set up, but the condition of the patient's pulse and skin forbade depletion. The ligature was removed at once, but no pus came away with it; after which the compress and bandage were re-applied; calomel and opium in full doses at frequent intervals were ordered, and brandy and water in small quantities at a time exhibited occasionally. Hot stupes were applied to the abdomen, followed by a large warm poultice, and a turpentine enema was exhibited, which brought away a large quantity of flatus.

"He remained very restless through the night. The surface never became hot, and the skin continued to be bedewed with a cold clammy sweat, while the pulse remained very small, rapid, and compressible. The vomiting of the same dark-coloured fluid continued at intervals. The calomel and opium, brandy and water, beef-tea, and hot applications, were continued, and the enema repeated (again bringing away much flatus); but he sank, and died at 4 P.M. on the 28th instant.

"*Autopsy*, twenty-one hours after death.—*External appearance:* body stout, muscular, and well-formed. *Cranium:* veins of the pia mater and arachnoid much congested; section of the brain presented larger blood-points than are seen in a perfectly healthy brain. Weight of brain, 3lbs. 2oz.

"*Thorax.*—Cavities of the heart filled with fibrinous clots; structure healthy. Weight, 12 oz.

"The trachea and bronchial tubes contained frothy mucous. The mucous membrane of the whole of the air passages much congested. Posterior parts of both lungs congested and gorged with serum; otherwise healthy. Weight of lungs and trachea, 3lbs. 6oz.

"*Abdomen.*—Contained about a pint of turbid serum, with flakes of lymph floating in it. The whole surface of the peritoneum showed lymph-deposit, and the inflammatory action appeared to have been most intense along the mesial line, a little above the pubes. The skin was now dissected off the groin. The external needle-wound (or that through the external pillar of the ring) showed no particular vascularity The internal needle-wound had, after catching the internal pillar and conjoined tendon, been carried into the rectus muscle for about an inch from its outer border. This wound looked unhealthy. The sac of the hernia extended well into the scrotum. On opening it, a constriction was found about an inch and-a-half above its extremity.

"The part below this constriction was vascular, thicker than the upper portion, and coated with soft lymph-deposit on its peritoneal aspect. The portion of the peritoneal lining of the sac, situated above the constriction, did not show signs of active inflammatory action, except that it did not present the glistening appearance proper to healthy peritoneum. The sac had not been entered by either needle-puncture, and no gut was found even in the upper portion of it (or that above the constriction).

"On following up the internal needle-wound (or that through the internal wall of the inguinal canal) into the right rectus muscle, the cavity of a large irregular unhealthy-looking abscess was opened. It was of a considerable extent, occupying, in a perpendicular direction, about 3 inches of the substance of the muscle, and extending towards the left side into the substance of the left rectus, nearly as far as the external border of that muscle. It also extended downwards behind the pubes, between the abdominal wall and the peritoneum: and on lifting away the intestines which lay against the abdominal wall, a little above the pubes, and which were adherent to it, the appearance of a minute aperture presented itself nearly in the mesial line of the body, and as nearly as might be opposite to the centre of the abscess-cavity, leading into the last-mentioned part, although none of the contents of the abscess appeared to have found their way into the abdominal cavity, owing to the resistance of the surrounding plastic effusion.

"*Liver.*—Healthy. Weight, 4lbs. 3oz; gall-bladder full of thick bile; spleen healthy; weight, 7 oz. Stomach and intestines healthy throughout.

"*Remarks.*—On reviewing the case, it would appear that the sac of the hernia had been pushed up before the finger in the operation, so that, with the exception of the 1½ inches below the constricted portion, it had passed into the cavity of the abdomen, and that this portion had either remained in the canal in front of the finger, or, if the whole sac had passed into the abdomen, it had thus far re-descended on the removal of the finger so as to become constricted by the ligature upon its being tightened. The vomiting of the dark-coloured porter-like fluid, and its obstinate persistance, looked not unlike as if a portion of gut had by some means become constricted. This, however, was after death clearly seen not to have been the case.

"The progress of the case seems to point out that the inner ligature had produced inflammation and the formation of pus in the substance of the right rectus muscle. This would account for the feverishness and tenderness noticed on the 26th. That this inflammation and suppuration then extended

to the left rectus muscle, was evidenced on the 27th by the extension of the tenderness towards the left side of the body. The pus would then appear to have been seeking vent towards the bowels instead of outwards, and to have made its way towards the peritoneum, ultimately extending itself between that membrane and the abdominal wall behind the pubes, and there lighting up peritoneal inflammation, as evidenced by the vomiting, set up at 3 P.M. on the 27th, and the rapidly-following abdominal tenderness. Probably the peritoneal cavity became then opened, which would account for the almost sudden supervention of the state of collapse. It would also seem that, after the removal of the ligature, the entire sac had re-descended into the scrotum, sufficiently strong adhesions not having yet been set up to retain the parts in the position they had been placed in, although the compress prevented any gut coming down with it.

"To what are we to attribute the setting up of this too profuse suppuration? The man was a healthy-looking soldier. The appearance of the portion of muscle included in the ligature showed that it had not been pulled sufficiently tight to strangulate it entirely, and so produce sloughing. Two cases of erysipelatous inflammation had, however, shown themselves during the month in the hospital, although in other wards than that occupied by this patient, and the condition of the atmosphere, or other causes producing this affection, may perhaps have had an influence on the result of this case. One of these cases occurred on the 12th, in a man suffering from abscess of the forehead; the other, in a patient labouring under a secondary syphilitic eruption. In both, the disease affected the head and face. It may also be noticed that the stump of an arm from which a small fragment of necrosed bone was removed on the day of the operation in this case, was found on the second day subsequently to present an erythematous blush around the small incision through which it had been effected.

"The case seems to show, that the assertion of Mr. Spencer Wells, in his remarks upon Wützer's operation (vide *Med. Chr. Transactions*, vol. xxxvii., p. 79), viz., that the sac cannot be pushed up before the finger, unless in very recent herniæ, but that it must, of necessity, be invaginated, is incorrect. Mr. Wood, in his first published account of his operation (*Transactions King's Coll. Med. Soc.*, vol. ii., 1857–58), asserts that the sac is not opened in his operation, as, indeed, it was not in this instance; but he informs me that he now believes that, in old hernia, it is usually transfixed. This, however, I apprehend, must entirely depend upon the amount of the connections which the sac has formed in the scrotum, and this probably varies much in different cases. It seems not unlikely that, when a truss has been systematically worn from the first, the whole of the sac may usually be returnable into the abdomen.

"A radical cure of this disability is a matter of vast importance to the service, but the result of this case hardly warrants our continuing to perform the operation."

The invalided wounded during the mutiny commenced to arrive at the Invalid Depôt in April 1858, and during the fifteen months since elapsed, the arrivals of this class of invalids have averaged 50 per month. The total, inclusive of the 54 arrived during the month under report, is now 743, of which number 178 are cases of amputation or excision. June 1859.

The total above referred to includes only Cavalry and Infantry of the Line; but thirteen of the Royal Engineer corps, wounded during the mutiny in India, have also arrived at Chatham, and have been disposed of at the head-quarters of

their corps at this station. A nominal and descriptive roll of eight of these thirteen cases was appended to the monthly report for January last, and a similar roll of the five arrived since is appended to this (vide p. 330). The total thirteen cases includes only two amputation cases, both being of the arm after gunshot wound.

During June 1859, the addition of two cases of gunshot fracture of the femur to those previously arrived, led to the observation of the very large proportion of these cases to the total wounded, and on the striking difference in the proportion of these cases to thigh stump cases, as compared with the number and proportion of such cases furnished by similar returns of invalided wounded from the late war in the Crimea, contained in the Chatham Annual Medical Report for 1856–57. The number and proportion which these gunshot fractured femur cases bear to each other and to the total invalided wounded, seem to be of statistical value, as bearing on the question of the expediency, or otherwise, of amputation in that description of wound.

In the following tables, these statistics are set forth, together with similar data collected from the records at Fort Pitt, of the invalided of preceding wars in India.

TABLE 1.—Showing the Number of Invalids by all Wounds and of cases of Gunshot Compound Fracture of the Femur, and of Thigh Stump cases; passed through the Invalid Depôt, Chatham.

	Total by all classes of wounds.	Total cases of Gunshot Compound Fracture of Femur.	Total Thigh Stump cases.	Remarks.
Sutlej—				[a] Exclusive of one dead of erysipelas when at Fort Pitt.
H. M.'s 29th only	47	2[a]	2[b]	[b] One of these recorded as lower third, in the other the third not stated.
All Corps, H. M's. Service ..	357	6[c]	18[d]	[c] Whether the fracture was completely through the shaft is doubtful in one of these cases.
Punjaub—				[d] One only specified as in upper and one in lower third.
All Corps, H.M.'s Service.. ..	129	..	6[e]	[e] The third specified only in one case and that in the middle third.
Persia—				[f] In middle third.
All Corps, H. M.'s Service.. ..	4	1[f]	..	[g] Exclusive of one dead at Gravesend.
Mutiny of Bengal Army—				In the cases of recovery the trochanter is fractured in .. .. 2 cases. Upper third in 3 „ Upper as well as middle third in 1 „ Junction of upper and middle third in 1 „ Middle third in .. 1 „ Junction of middle and lower third in 1 „ Lower third in .. 1 „ — Total 10 —
All Corps of the Line, H. M.'s Service.. ..	743*	10[g]	13[h]	[h] Exclusive of one dead at Gravesend.
Royal Engineer Corps	13*	1	..	[i] In upper third .. 3 cases. In junction of upper and middle third 1 „ In middle third .. 4 „ In junction of middle with lower third.. 1 „
Preceding Indian wars	1246	18	37	[j] In upper third .. 3 cases. In junction of upper and middle third.. 1 „ In middle third .. 15 „ In lower third .. 3 „ In third not stated 40 „
Crimea—				
Of Cavalry and Infantry of the Line	2296	9[i]	62[j]	

* Probably a few more wounded may arrive from India, but not a sufficient number materially to disturb the relation of the above figures.

TABLE 2.—Proportion of cases of Gunshot Compound Fracture of the Femur to Thigh Stump cases, and to all cases of Wounds and Injuries in Action, passed through the Invalid Depôt at Chatham; also the proportion of Thigh Stump cases to total of all classes of wounded.

	Gunshot Compound-fractured Femur cases to		Proportion of Thigh Stump cases to total cases of Wounds and Injuries in Action.
	Total cases of Wounds and Injuries in Action.	Thigh Stump cases.	
Sutlej Campaign, 1845-46—			
Her Majesty's 29th Regiment only ..	1 to $23\frac{1}{2}$	2 to 2	1 to $23\frac{1}{2}$
All Regiments, H. M.'s Service ..	1 to $59\frac{1}{2}$	1 to 3	1 to $19\frac{5}{16}$
Punjaub Campaign, 1848-49—			
All Regiments, H. M.'s Service ..	1 to 129	1 to 6	1 to $21\frac{1}{2}$
Persian Campaign, 1856-57—			
All Corps, H. M.'s Service	1 to 4	1 to none	none to 4
Mutiny, Bengal Native Army, 1857-58—			
All Regiments, H. M.'s Service ..	1 to $74\frac{3}{10}$	1 to $1\frac{3}{10}$	1 to $57\frac{3}{7}$
Royal Engineer Corps	1 to 13	1 to none	1 to 13
Preceding Indian Wars	1 to $69\frac{4}{18}$	1 to $2\frac{1}{18}$	5 to $33\frac{25}{37}$
Crimea—			
Cavalry and Infantry of the Line ..	1 to $255\frac{1}{3}$	1 to $6\frac{5}{9}$	1 to $37\frac{3}{86}$

The preceding tables show, of the Indian wars as compared with the Crimean war, that the thigh stump cases arrived home from India are a fraction more numerous than those from the Crimea, in proportion to the total arrived by all wounds; and that the recovered cases of gunshot fracture of the femur also arrived are, in proportion to the total wounded, four times more numerous from India than from the Crimea. In other words, the proportion of thigh stump cases being so nearly the same, the gunshot fracture of the femur cases from India, over and above the proportion from the Crimea, may be received as representing the proportion of cases of this description of wound lost there by amputation, or by less favourable circumstances of service. The difference, I believe, is to be explained by the better appliances and means attending field hospitals in India and to the less frequent practice there of amputation in this description of wound. The difference is not to be explained by difference of missiles, for in the Peninsular war, where no other than the 16 to the pound bullet was used, the impressions of surgeons experienced in the surgery of that war was, that in only few exceptions should a gunshot fractured thigh not at once be amputated. This rule greatly influenced the practice of

surgery in the Crimean war, and hence, in a considerable measure, I believe, the less favourable results thence than from the mutiny in India, when surgeons were not only deterred from amputation of the thigh by the Crimean experience of the fatality attending that operation, but were more inclined to attempt preservation of the limb by the better means at hand for the conveyance and treatment of such compound fractured thigh cases.

Further, it is to be observed, that only one-fourth of the total thigh stump cases are to be considered as amputations after gunshot compound fracture of the femur; and this being the case, the number thus wounded in the Indian mutiny, who have recovered with the limb on, is eleven, whilst the number recovered after amputation for this description of wound, is only between four and five. The records of thigh stump cases amongst the wounded from the Crimea, passed through the Invalid Depôt, Chatham, rarely give the nature of the injury for which the amputation was performed, and the part of the shaft through which the bone was sawed is only recorded in 22 of the total 62 cases.

I subjoin brief extracts of ten* of the cases of gunshot compound fracture of the femur, and of the thirteen thigh stump cases referred to in the preceding remarks.

ABSTRACTS of ten cases of Gunshot Compound Fracture of the Femur.

	Rank, Name, Regiment, Age, and Service.	Place and date of receipt of Wound.	Description of Wound, and site of Fracture.	Results, as observed at Fort Pitt.
1	Private Patrick Carty, 64th Regt., aged 28. Total service 10.	On the advance to Lucknow 29 July, 1857.	Musket ball penetrated right thigh in region of trochanter major, fracturing the bone at or just below that process, and again at middle third, where the ball appears to have lodged.	April 1858.—Wound long since healed, and fractures firmly united. Limb shortened about 2½ inches, but in other respects good, and he walks well, with little lameness, and without crutches or stick. Sent to modified duty, 6 Sept.—Discharged to pension, 22 Dec., 1859, by Horse Guards' order.
2	Private John Ashworth, 53rd Regt., aged 29. Total service $9\frac{4}{12}$.	On the 1 Nov., 1857.	Musket ball perforated right thigh, fracturing the femur in its upper third.	July 1859.—Wounds healed and bone firmly united, leaving so good a limb that he was sent to modified duty on 6 Sept. The shortening was under 2 inches. June 1859.—Limb, with the exception of shortening, perfectly good, but he is now discharged to pension, being unfit for all duties.

* The eleventh case is that of Sapper Charles Bones, R.E. (*vide* p. 330).

	Rank, Name, Regiment, Age, and Service.	Place and date of receipt of Wound.	Description of Wound, and site of Fracture.	Results, as observed at Fort Pitt.
3	Private Joseph Hewitt, 52nd Regt., aged 27. Total Service $9\frac{4}{12}$.	At Goodespore, 12 July, 1857.	Musket ball penetrated front of left thigh fractured the femur in its upper third and was cut out behind at lower edge of glutæus.	July 1858. — Wounds healed, bone firmly united, $1\frac{1}{2}$ inches shortening; but there remains a good useful limb. Discharged to pension, 22 July, 1858.
4	Corpl. Edward Collins, 75th Regt., aged 32. Total service $14\frac{2}{12}$.	Delhi, 8 June, 1857.	Perforating musket ball wound, fracturing the femur in its upper third. Ball recorded to have been extracted.	July 1858. —Wound healed, bone united, ends overlap, and callus large; $2\frac{1}{2}$ inches shortening; has, nevertheless, a good useful limb, and he walks well. Passed to modified duty, 6 Sept., 1858, but discharged to pension by Horse Guards' order.
5	Private James Burke, 53rd Regt., aged 26. Total service $9\frac{11}{12}$	Lucknow, 16 Nov., 1857.	Musket ball penetrated front of left thigh, fractured femur at middle third, and was cut out at inner and posterior aspect of limb.	August 1858.—Wound healed, fracture united, $1\frac{1}{2}$ inch shortening. Has a good useful limb, and walks so well that he was sent to modified duty on the 16 Sept., 1858. Discharged to pension, 10 June, 1859.
6	Private Samuel Hunter, 93rd Regt., aged 21. Total service 3.	Cudjee, 1 Nov., 1857.	Musket ball perforated left thigh, fracturing the bone at junction of middle and lower third.	September 1858.— Apertures of entrance and exit of ball healed, but there is a sinus through which dead bone is detected; 1 inch shortening; great deposition of callus, obstructing motions of knee joint. Discharged to pension, 5 Dec. 1858.
7	Private William Cunningham, 1st Bat. 8 Foot, aged 31. Total service $13\frac{6}{12}$.	Dehi, 14 Sept., 1857.	Gingall ball passed across front of left thigh, fracturing the femur at junction of upper and middle third.	April 1859. — Wound healed. This is an unfavourable specimen of recovery with the limb on, because of the fractured ends having been allowed to overlap and unite at an angle, causing $4\frac{3}{4}$ inches shortening; but with the help of a mechanical contrivance furnished by Mr. Bigg, the man is able to get about. Discharged to pension.
8	Private Samuel Shaw, 53rd Regt., aged 36. Total service $15\frac{6}{12}$.	Lucknow, 23 Feb., 1858.	Perforating musket ball wound, fracturing the femur in the lower third.	May 1859.—Wound lately healed, bones firmly united; $1\frac{1}{2}$ inches shortening; knee joint stiff; walks, however, very well. Discharged to pension, June 1859.
9	Private George Williams, 24th Regt., aged 29. Total service 10.	Umritsir, 18 Oct., 1857.	Musket ball entered right groin below Poupart's ligament, external to the vessels, and passed out behind great trochanter, fracturing the femur, probably through the trochanter.	June 1859.—Opening of entrance and exit healed, but a sinus open behind, leading to dead bone. There is about $1\frac{1}{4}$ inches shortening. The man remains in Fort Pitt, having lately suffered erysipelas of the injured limb, which no doubt, however, will be eventually good and useful. He is now in good health.

	Rank, Name, Regiment, Age, and Service.	Place and date of receipt of Wound.	Description of Wound, and site of Fracture.	Results, as observed at Fort Pitt.
10	Private John Curtis, 86th Regt., aged 35. Total service $14\frac{2}{12}$, of which 13 years in India.	Mendesoor, 23 Nov., 1857.	Musket ball entered left groin, and passed out obliquely near great trochanter, fracturing the femur just below that process.	June 1859.—Necrosis of fractured ends; openings not quite healed; $3\frac{1}{4}$ inches shortening; health good. This soldier remains at Fort Pitt to be fitted with an apparatus like that given to private Cunningham.

Abstract of thirteen Thigh Stump cases, referred to in the preceding remarks.

1. John Smith.—Amputation at junction of middle and lower thirds after shell wound. Site not specified.

2. Hugh Nelson.—Amputation at junction of middle and lower third after cannon-shot smash of knee joint.

3. Edward Byrne.—Amputation centre middle third after musket-ball wound of thigh.

4. John Kehoe.—Amputation at junction middle and lower thirds (the primary was in lower third, but a secondary removal of bone became necessary) after musket-ball wound, but not stated where; probably was of thigh or knee joint.

5. John Nolan.—Amputation middle third after grape-shot smash of knee.

6. Thomas Ryan.—Amputation middle third after grape-shot wound of knee.

7. Bernard Allen.—Amputation upper third after rifle-ball wound, but site not stated.

8. Thomas Dixon.—Amputation middle third after cannon-shot wound of knee.

9. George Lear.—Amputation at middle third after fracture of femur by musket ball.

10. James Nolan.—Amputation middle third after fracture of femur by musket ball.

11. M. Gearen.—Amputation middle third after fracture femur by musket ball (he says struck calf of leg, and the operation performed one month afterwards).

12. G. Donovan.—Amputation middle third on account of musket-ball wound knee joint, with fracture of internal condyle (femur or tibia?).

13. J. Donaldson.—Amputation middle third after cannon-shot smash of knee (?) bones of leg (?).

July 1859.

The following extract from the report of Surgeon-Major Matthew, in charge of the surgical division, Fort Pitt, gives all necessary details with respect to invalided wounded arrived this month:—

"Total number of Indian wounded arrived during the month has been thirty-eight.

"Among these were seven cases of amputation, viz., two of upper arm, two of fore-arm, one of thumb and its metacarpal bone, one of finger, and one a Chopart's operation on the foot; the last named presented the heel very much carried backwards, so as to bring the line of incision nearly on to the ground when the man attempted to put the stump to use in progression.

This, I think, can be remedied by division of tendo-achillis, and the adaptation of an apparatus, as soon as a small abscess over the heel shall be thoroughly sound.

"One excellent case of conservative surgery presented itself. J. Conolly, 37th Regiment, was wounded on 26th October, 1858, at Shahabad, by two musket balls or slugs, one of which shattered the metacarpal bone of the right thumb, the second passing through the ball of the thumb. Notwithstanding the amount of injury to the bone, the thumb has been preserved; and although the power of flexing it is totally lost, it is most useful as an opponent to the fingers.

"A curious case may be noticed in the person of J. Skinner, 6th Dragoon Guards, who was wounded on 24th November, 1858, by a musket ball which passed through the left popliteal space, apparently injuring the tendons of both hamstrings, and wounding the artery; the superficial femoral was tied on the same day, apparently on account of hæmorrhage. The knee is now contracted to nearly a right angle.*

"W. Marsh, 78th Regiment, received a severe fracture of right femur on 2nd March, 1858, by masonry moved by round shot, probably comminuted, but not compound, although a large flesh wound was inflicted. The limb is now four inches short, and presents much deformity, although probably it will admit of the adaptation of an apparatus.

"James Moore, 75th Regiment, was wounded at Delhi on 18th July, 1857, by a musket ball through the left side of the thorax, which must have perforated the lung, although perhaps not deeply. He has so far recovered that he was sent to his regiment for modified duty, in accordance with letter of D.A.G., dated 20th August, 1858.

"As usual, many of the gunshot wounds had been allowed to become followed by great, and in some instances irremediable, contraction of limbs. Among which, I may specially instance P. Ryan, 52nd Regiment, and Michael Coney, 1st Battalion 60th. In many instances, perhaps, in part this could not be avoided; but from the great benefit received by the majority of the cases on the application persevering and systematic extension after arrival here, I am persuaded that a little attention and ingenuity during an earlier period of the treatment, would have saved pain to the patient, and time and trouble to the surgeon."

Sept., 1859.

The number of invalids from India on account of wounds arrived at this station during September, is twenty-eight, including the following:—

Shoulder-joint	2
Thigh	1
Leg	1
Thumb..	1

Surgeon-Major Matthew remarks that several of the recently arrived cases are of great interest, the chief of which he notes as follows:—

"James McCullen, 1st Battalion 13th, was wounded on 26th October, 1858, at Jugdespore, by what appears to have been a musket ball, which entered the skull about one inch above the right supra-orbital ridge towards its outer part, and is supposed to be lodged. A very imperfect account of the case has been forwarded, but from the man's account, although stunned at the time, he appears to have suffered but little inconvenience. There is now a small opening, three-quarters of an inch above the outer angle of the

* Mr. Matthew states that this contraction was subsequently "rectified very successfully."

eyebrow, with the appearance of much bone having been lost around it, as the surface of the skull for a space of some two inches in diameter seems flattened. No dead bone can be felt in the small opening now remaining, nor any foreign body. There is a scanty discharge of well formed pus. The wound bleeds very readily on being touched with a probe, but no brain pulsations are visible, although there is no doubt but that the instrument passes into the cavity of the skull. The man's intellect appears to be impaired, and he seems to be slightly deaf. He, however, makes little complaint, and says he feels well enough, but that he has occasional headache.

"2. James White, 3rd Battalion Rifle Brigade, was wounded on 8th October, 1858, at Sandelah by a musket ball, which entered four and a-half inches above the nipple, and one and a-half to the right of the middle line in front, and made exit about the centre of the body of the scapula, four inches to the right of the spinous process of the vertebræ. The ball must have passed directly through the upper lobe of the right lung. Both openings are now soundly healed. The ball on entrance seems to have gone between the ribs without wounding them, but at its exit a hole in the scapula can still be felt. The right lung now works well, but that side of the chest is scarcely so much expanded on inspiration as the opposite, and he says he feels shortness of breath on exertion. There is, however, no appreciable dullness on percussion. As to the mode of treatment adopted nothing is said; but the patient states that he was not bled, and had no leeches applied. He bears no marks of either local or topical bleeding. The man was previously wounded in the Crimea by a musket ball in the left shoulder, which seems to have occasioned partial fracture of the left scapula.

"3. John Gerry, 2nd Battalion 60th, was wounded at Nonea, in Jugdespore, on 21st October, 1858, by a musket ball, which, entering the left thigh in the middle third at its inner aspect, must have passed very close to the artery, and fractured the femur at the junction of its middle and lower thirds, remaining lodged in the limb. The bullet was about six months afterwards cut out of the back of the thigh, opposite the central third. Two fragments of dead bone were subsequently removed from the same opening, which is now soundly healed. The femur is firmly united, and the leg shortened $3\frac{1}{2}$ inches. The wound of entrance is, however, open, and a fragment of dead bone can be detected at the bottom. There is also another opening in front of the thigh, about $2\frac{1}{2}$ inches above the patella, towards the outer aspect of the limb, from which a long sinus leads upwards, apparently to the seat of the dead bone felt from the opening of entrance. The man will have a most serviceable limb when fitted with a high heeled boot.

"4. Cormick Walsh, 88th Regiment, was wounded on 21st October, 1858, at Birwah, by a musket ball, through the back of right thigh, passing across the popliteal space from without inwards, and apparently wounding the nerve, but not injuring the bone. The wound is healed; but, probably chiefly on account of the nerve injury, the leg is atrophied, and the foot remains in the extended position, the patient asserting that any attempt to flex it gives him excruciating pain in the whole limb.

"On the same day the patient received a second wound by a bullet in the left leg, just below the tuberosity of the tibia, which partially fractured that bone, and made its exit over the fibula. This wound is soundly healed, and its consequences are of comparatively little moment.

"5. Serjeant Michael Kearnan, 88th Regiment, was wounded on 21st October, 1858, at Burwah, by a musket ball, which entered over the outer margin of the left patella, and made its exit over the outer hamstring. The wound is now soundly healed. The limb is somewhat atrophied, apparently from disuse, but the motions of the joint are perfect. It is possible that the cavity of the joint was not opened; but from the position of the cicatrices of entrance and of exit, it seems difficult to conceive how

this could have been the case; and, as usually happens when an instance of wound or injury of more than common interest presents itself, the documents forwarded with it are almost entirely destitute of information. If the joint were opened, the result of the case may be looked upon as most successful, for, as before stated, the motions of the joint are uninjured, and the limb will almost certainly recover its strength under judicious exercise.

"6. George Lafferty, 79th Regiment, was wounded at Lucknow on 11th March, 1858, by a musket ball, which, entering the outer part of the middle third of right leg, seems to have passed directly backwards between the bones, without injuring either of them, and made its exit about the centre of the calf. The wound is soundly healed, and although the man is still lame, this appears to be simply the result of his not having been instructed to use the limb. Since admission here, he is rapidly improving, his crutches having been taken from him, and he now gets about quite well with the aid of a stick.

"This patient was also the subject of a large hydrosarcocele; the hydrocele has been injected with iodine, and cured, and the sarcocele is now reduced within very moderate limits, and promises a perfect cure.

"7. Patrick Kennedy, 1st Battalion 5th, was wounded on 2nd December, 1858, at Mohee, by a musket ball, through the web of the ring and middle fingers, left hand; the 'adjacent phalangeal and metacarpal bones' are stated by the surgeon to have been 'shattered, and some small pieces of bone came away.' I call attention to this case, because it well illustrates the malpraxis to which, I am sorry to have to say, the abuse of the fashionable term, 'Conservative Surgery,' often leads. If both the metacarpal bones were 'shattered' as stated, there can be no doubt the finger should have at once been amputated, and the shattered bone cleared away. Had this been done, the probability is that the forefinger and little finger would have remained useful. As it is, however, all the fingers are now stiff in the extended position, the ring finger by bony anchylosis to the metacarpus, and the other fingers by adhesion of tendons. The hand is almost utterly useless, and there is little or no prospect of improvement. It appears to me that this is 'Conservative Surgery' in the wrong direction.

"In the case of Chopart's operation, noticed in the July report as presenting a painful cicatrix on the aspect requiring pressure in progression, the tendo-achillis has been divided, and the heel brought forcibly downwards, so that the weight can now be taken upon the extremity of the os calcis, and a boot with an apparatus so adapted as to prevent a return to the faulty position, has been ordered. It is, however, doubtful if this case were a genuine instance of Chopart's operation, as the astragalus seems to have been removed, but it was sent home under the above designation from India.

"In one instance, where the elbow had been allowed to become set in nearly the straight position after a sabre wound over the head of the radius, the joint has been flexed under chloroform to a right angle, a much more convenient position for use of the limb. In another instance, the position of a contracted finger has been partially rectified after division of the tendon; and in a third case of contraction of the knee-joint (Skinner, Case No. 2, July report), the limb was extended under the influence of chloroform. It appears, however, that the peroneal nerve is engaged in the cicatrix, and after the patient's recovery from the chloroform insensibility, the pain experienced was so great that the extending splint had to be removed. I purpose, however, renewing the attempt, combining subcutaneous section of the nerve with forcible extension."

A case of trismus, apparently of idiopathic origin, occurred in the Royal Engineer Corps. Surgeon-Major Ferris, the medical officer in charge, gives the following details of this instance of that rare form of the disease:—

"My hospital serjeant, Hamilton, had rather a sharp attack of trismus. I cannot account for its origin, unless it arose from exposure on a very windy day in a third class railway carriage, or from a small cut in the finger received accidentally three days before from a cupping instrument. He was unable to open his mouth in the least for two days, and it was partially closed for eight days, with great difficulty of deglutition, and shooting pains extending down the right arm. On its first appearing, the neck was well fomented and leeched, and two purgative enema were administered, which freely relieved the bowels. Little benefit was derived from the treatment, when he was ordered half-grain doses of morphia every two hours, with camphor mixture, and a strong liniment of chloroform and soap liniment rubbed in freely into the neck. After the eighth dose of morphia the disease began to yield, and the spasms gradually subsided. It of course left him very weak, as he was unable to swallow for days without great difficulty. He is now quite well. The serjeant was treated in his own quarters in the hospital."

October 1859.

Sixteen wounded invalids from India were received this month, including three cases of minor amputations.

Of these sixteen, Surgeon-Major Mr. Matthew notices the following as the most interesting:—

"Private Edward Nevin, 86th Regiment, was wounded at Jhansi, on 6th April, 1858, by a musket ball, which perforated the left triceps muscle from without inwards, apparently grazing the humerus, and thus obtaining a rotatory motion, then entered the left side of the belly over the eleventh rib, does not appear to have injured the rib, although this point is somewhat doubtful, but to have hugged the skin, and made exit towards the opposite side of the body, after a passage of 9 inches, passing through the muscles arising from the internal condyle of the humerus of the right forearm. All the wounds were soundly healed, but that in the arm has been followed by complete paralysis of extension of the little finger, and partial paralysis of the ring-finger of the left hand.

"John Keane, 86th Regiment, was wounded at the Hill-fort, Chandaree, on 17th March, 1858, by a musket ball, which touched the skin over the triceps of left arm, then entered the back, and, after a course of 5½ inches, made exit close to the spinous processes of the vertebræ. The account of the case, furnished by the surgeon of the regiment, says: 'Wounding the lung, large portions of bone came away from the wound near the spine, and the wounds were seven months open.' It is, however, to be noted, that the surgeon who wrote this account did not see the case until long after all the wounds were closed; and from what can now be seen, there seems great reason to doubt if the lung was wounded at all, except, perhaps, by the contusion, and it seems even improbable that the chest cavity was opened. No deficiency of rib can be felt, and the ball does not seem to have touched the spinous processes of the vertebræ. The man is fat and hearty, and the lung works normally. After examination by a Board of Medical Officers, this man has been sent back to his regiment for duty, it being believed that the surgeon of the regiment had too hastily adopted the man's statements with respect to the circumstances of the case. Among the symptoms enumerated by the patient, as existing on his admission at Fort Pitt, were great difficulty in swallowing, pain in the left side, dyspnœa, and palpitations; of the existence of any or all of which there was not the slightest evidence beyond his own assertion."

Amongst minor operations performed by Mr. Matthew this month, in the surgical division, he details the following case, which was complicated by a slight attack of erysipelas:—

"T. Smith, 80th Regiment. Necrosis of a part of the os calcis had taken place, which he attributed to a gunshot injury received in 1845. An incision for the removal of the dead bone was made on the 11th October, on the outside of the foot, when the greater part of the posterior portion of the bone was found to be diseased, but the insertion of the tendo-achillis was thought to be sound. The diseased bone was freely removed with the gouge. A few days after the operation, a slight attack of erysipelas supervened, which it is believed has led to the death of a further portion of the bone, but to what extent this has proceeded is yet doubtful. Apparently it is not large, and will probably separate with the suppuration which is now freely established."

Nov. 1859. Only one wounded invalid from India has arrived this month.

An abstract of ten cases of gunshot compound fracture of the femur arrived at Fort Pitt, amongst the wounded from India, by the late mutiny of the Bengal Native Army, is entered in the report for last June, with reference to the proportion of these severe fractures of the femur to the total by all classes of wounds, and to the thigh stump cases, also included in that total. Since the date of that report an additional case of gunshot fracture of the femur, and also one of thigh stump, have arrived amongst the wounded from India, which cases are noticed in the report for September last. To the twelve cases of gunshot fracture of the femur already referred to, there is now to be added another case, about the nature of which there has hitherto been some doubt. The case alluded to is that of Private James Moore, 1st Battalion 24th Regiment, noted in the report for April last as probably a case of necrosis of head and neck of the femur following gunshot wound of the great trochanter. Surgeon-Major Matthew, in his Surgical Division Report for the month just ended, expresses now a decided opinion that this case is another instance of gunshot fracture of the femur. The following are Mr. Matthew's remarks:—

"J. Moore, 1st Battalion 24th Regiment, vulnus sclop. I have fully satisfied myself that this was an instance of gunshot fracture of the upper part of the femur. The upper part of the thigh and buttock have now become much consolidated; and although a sinus in the buttock remains open and leads to a fragment of dead bone which is not yet loose (although the wound was inflicted in July 1857), the parts are in a quiescent state, and the man having been fitted with a high-heeled boot, is able to get about with facility by the help of a stick, and is now in good health, and free from the ague, from which he formerly suffered so severely."

Besides several cases of minor operation, Mr. Matthew reports the following, in which he performed Symes' operation on the urethra:—

"Private William Rogers, 1st Battalion 8th Regiment, suffering from perineal fistula and obstinate elastic stricture, has been submitted to the

operation of perineal section as performed by Mr. Syme, the perineal fistula being at the same time laid freely open. The case promises well, although complicated with disease of the neck of the bladder, and perhaps of the prostate."

Surgeon-Major Dr. Maclean notices a case of chronic synovitis of the left knee-joint, in which a considerable quantity of fluid was collected, and attended with great swelling of the joint. A small trocar was introduced in an oblique direction, and fluid, to the extent of ʒxiv drawn off. The joint was then carefully bandaged, and fixed in a straight position by a splint. The case is going on remarkably well. The joint has now nearly its normal size and appearance.

Only five cases of wounds have been admitted this month, making the total received during the mutiny in India, who have arrived at the depôt up to this date, 832. One amputation of the leg, and one of the finger, were amongst the five recent admissions; 195 of the above total wounded are cases of amputation or excision. Dec. 1859.

Surgeon-Major Matthew reports, that in one of the cases arrived during the month, "the bullet passed through the pelvis, entering near the left trochanter, and making its exit on right side, near the same process of the corresponding femur. It appears to have wounded the rectum and the sacrum in its transit, and to have inflicted some injury on the bladder, the nature of which is still doubtful."

In another case, "a grape-shot has carried away the greater part of the right maxillary bone, displaced the right malar bone, and fractured the right zygoma. The left superior maxilla and left ramus of the lower jaw are also fractured. The deformity is much less than might have been expected, but the left superior maxilla has been displaced into the centre of the mouth, and the teeth consequently cannot be brought into contact."

ROYAL ENGINEER HOSPITAL, BROMPTON.

NOMINAL and Descriptive Return of Men of the Royal Engineers, Invalided from India in consequence of Wounds, and Injuries received during the Mutiny in India.

Rank.	Names.	Disease, &c.	Date of Admission into this Hospital.	Remarks.
Sapper..	Thomas Wilson .. .. .Et. 24. Service, 2 years 5 months.	Vulnus Sclopitorum.	16th June, 1858.	"Gunshot wound of head, 2½ inches above left ear, received in Col. Powell's Action, 1st November, 1857. The ball was extracted 48 days after injury. Seven small pieces of bone have come away; the wound is granulating, and the patient doing well. His wound incapacitates him for service in India. The pulsation of the brain is seen at the bottom of the wound.—Calcutta, 15th January, 1858." On his admission into this Hospital the wound was open and discharging from a surface about the size of a fourpenny piece; the scalp adherent in the neighbourhood. The patient complaining of giddiness and pain of head. Discharged the Service.
Sapper..	Henry James .. .. .Et. 21. Service, 2 years.	ditto.	9th July, 1858.	"Received a gunshot wound behind right knee-joint, at Lucknow, 13th November, 1857. The wound has quite healed, but the joint has been allowed to become quite stiff, and to remain bent, which incapacitates him for a time for service. —Cawnpore, 15th January, 1858." On his admission, on arrival here, there is inability to extend the joint fully; flexion of joint perfect; the bullet remaining in the neighbourhood of the joint appears doubtful. Employed on office duties.
Sapper..	Henry Walsh .. .. .Et. 24. Service, 2 years 6 months.	Vulnus Sclopitorum. Amputation of right arm.	9th July, 1858.	"Wounded by musket ball at relief of Lucknow, 16th November, 1857. The ball passed through the humerus just above elbow, shattering the bone. Extensive inflammation and suppuration amongst tendons of the forearm followed by exfoliation of humerus. The bone has been united, but the forearm remains permanently fixed in a semiflexed position; fingers and hand powerless.—Cawnpore, 12th February, 1858." It was necessary during the voyage home to remove the limb. Amputation on 18th May at upper third of humerus; on arrival here the stump had nearly healed. Discharged the Service.

Rank.	Name.	Disease, &c.	Date of Admission into the Hospital.	Remarks.
Serjeant	Edward Holman .. .. Æt. 28. Service, 12 years.	Vulnus Sclopitorum. Amputation of right arm.	16th Aug., 1858.	"Wounded at Lucknow, on 21st November, 1857, by musket ball in right elbow-joint and forearm. It was necessary to amputate, near shoulder, on 17th Dec." On his admission here the stump, which had healed, had lately broken out afresh, and there is evidence of a piece of dead bone attached to the extremity of the shaft, which keeps up the irritation. Employed on office duties.
Sapper..	Patrick McMahon	Vulnus Sclopitorum. Loss of right eye.	16th August ..	"Received a wound from hail shot, in the right eye, at Cawnpore, on 1st December, 1857. The contents of the eye escaped, and the lids, especially the lower, were much torn, and small portions of bone have come away from time to time." Discharged the service.
Sapper..	James Bain.. .. .. Æt. 23. Service, 2 years.	Vulnus Sclopitorum. Compound fracture of lower jaw.	16th August ..	"A round shot striking a pick-axe sent a piece of latter against his chin, causing a compound fracture of the lower jaw, at Cawnpore, 6th December, 1857. A small piece of bone was extruded lately from the wound, which is on the anterior surface of chin, about the size of a shilling, and discharges healthy pus." Taken into hospital here for further treatment.
Sapper..	Oliver Morris .. .. Æt. 22. Service, 2 years 7 months.	Vulnus Sclopitorum. Gunshot wound of right leg treated.	16th August ..	"Bullet penetrated outer side of calf of right leg, on march to Lucknow, at Mawatgungu, on 13th February, 1858. The bullet was immediately cut out on opposite side. There has been profuse discharge from both apertures, greatly debilitating the patient." Employed on office duties.
Serjeant	John Campbell .. .. Æt. 41 years 6 months. Service, 19 years.	Contusio lumborum.	26th Sept. ..	"Received a contusion of the lumbar region by falling down a well, 42 feet deep, on 27th December, 1857, about 40 miles from Cawnpore, on the road to Futtyghur; was taken to R. E. Field Hospital, where he had hæmaturia for about a month, during which time his lower extremities were paralyzed. He, also, for two months passed blood by stool, and still continues to do so at irregular periods, with nervous trembling and pain of lumbar regions on walking." Sent on recruiting service.

HENRY BRISCOE, M.D., *Surgeon, Royal Artillery.*

RETURN of Men of the Royal Engineer Corps Invalided from India on account of Wounds, &c., received during the Mutiny.

Rank.	Names.	Disease.	Remarks.
Sapper..	William Pugsley .. .. Æt. 24. Service, $3\frac{1}{12}$.	Vulnus Sclopitorum	This man received a musket ball in his wrist (right), on the 13th February, 1858, accidently. This took place at Lucknow. Three fingers remain stiff and useless and bent into the palm of the hand. I think it is a fit case for a Medical Board.
Sapper..	Abraham Wills .. .. Æt. 24. Service, $3\frac{10}{12}$	ditto.	On the 11th March, 1858, at Lucknow, in an engagement, this man received a musket ball through the left thigh. The wound at first proceeded most favourably, but after some weeks he suffered acute pain in the limb, extending up to the hip-joint. Leg is considerably shortened, and knee contracted. He is also a fit subject for a Medical Board.
Sapper..	Charles Bones .. .. Æt. $29\frac{6}{12}$. Service, $11\frac{11}{12}$.	ditto.	On the 22nd January, 1858, at Awah, East Indies, received a bullet in the left thigh, entering on the inner side and fracturing the thigh bone directly below the trochanter. A large abscess formed, which was opened on the outer surface of the thigh. The bullet has never been found, and the wound still discharges. Several pieces of bone have come away. The limb is very considerably shortened. I should say upwards of three inches. He will never be fit for service again.
Sapper..	Jonathan Williams ..	Vulnus Incis. ..	This man, at Kotch, East Indies, received a tulwar wound on the head, extending from the right temple towards the centre of the head; several pieces of bone came away afterwards. He still complains of giddiness and neuralgic pains, but looks fat and healthy. He is doing light duty at present.
Sapper..	Robert McLay	Vulnus Sclopitorum	On the 3rd April, 1858, at Jhansi, East Indies, he was struck by a musket ball on the left side of the head. Small pieces of bone were removed at the time, and some were discharged afterwards. He still complains of giddiness and pain in his head. He is now in hospital suffering from int. fever.

(Signed) GEO. F. FERRIS, *Surgeon-Major.*

X.

Hourly Observations on the Amount of Watery Vapour and of Carbonic Acid in the Atmosphere of some of the Wards at Fort Pitt, with the Windows closed and opened.

By ALBERT A. T. GORE, M.D., *Medical Candidate for the Army*,
and
J. G. PILCHER, M.R.C.S., *Medical Candidate for Her Majesty's Indian Service.*

First Experiment: Ward 6.—November 14, 1860.

Twenty-two patients in ward; windows closed; two fires and one gas-light burning; external temperature, 48½°; raining slightly; cubic space of ward, exclusive of furniture, 19,267·2 cubic feet, giving 875·7 cubic feet for each man. The observations were taken each hour during the night on the hygrometric conditions of the ward and external air, from 11 P.M. to 6 A.M., inclusive; at same time the amount of carbonic acid in the air of the ward was estimated by Pettenkofer's test.

Hygrometrical Observations (in Ward).

11 P.M.—Dry bulb, temperature 58°; wet ditto ditto, 53°; indicating dew point 48·5; elastic force of vapour, 0·342; weight of vapour held in cubic foot of air, 3·8 grains; relative humidity, 71·0.

12 P.M.—Dry bulb, 57°; wet ditto, 52°; indicating weight of vapour contained in cubic foot of air, 3·7 grains; relative humidity, 70·0.

1 A.M.—Dry bulb, 58°; wet ditto, 53°; indicating weight of vapour contained in cubic foot of air, 3·8 grains; relative humidity, 71·0.

2 A.M.—Dry bulb, 58°; wet ditto, 53½°; indicating weight of vapour contained in cubic foot of air, 3·95 grains; relative humidity, 73·5.

3 A.M.—Dry bulb, 58°; wet ditto, 54; indicating weight of vapour contained in cubic foot of air, 4·1 grains; relative humidity, 76.

4 A.M.—Same as last observation; no change in the bulbs.

5 A.M.—Dry bulb, 58½°; wet ditto, 54¼°; indicating relative humidity, 74·75; vapour in cubic foot of air, 4·125 grains.

6 A.M.—Dry bulb, 58°; wet ditto, 54½°; indicating dew point, 51·35; elastic tension of atmosphere, 0·380; weight of vapour in cubic foot of air, 4·25 grains; relative humidity, 78·5.

External Temperature during similar period.

12½ A.M.—Dry bulb, 58°; wet ditto, 48°; indicating dew point, 45·9; elastic force of vapour, 0·309; weight of vapour in cubic foot of air, 3·5 grains; relative humidity, 86.

3½ A.M.—Dry bulb, 52½°; wet ditto, 50½°; weight of vapour in cubic foot of air, 3·95 grains; relative humidity, 92·2.

6½ A.M.—Dry bulb, 51°; wet ditto, 50°; indicating dew point, 49; vapour required to saturate a cubic foot of air, 3·9 grains; elastic tension, 0·348; relative humidity, 93.

Observations drawn from the foregoing.

That there has been an increase in the ward—of 2·85 in the dew point, it having risen from 48·5 at 11 P.M., our first experiment, to 51·35, our last, at 6 A.M.; of ·038 in the elastic tension, having risen from ·342 to ·380; of ·45 in quantity of vapour contained in a cubic foot of air, having risen from 3·8 to 4·25; and of 7·5 in the relative humidity, having risen from 71 to 78·5, so that there was contained in the ward at 11 P.M. 10·71 lbs. of vapour, this quantity being increased to 12·07 lbs. at 6 A.M., so that in this time, viz., seven hours, 22 men exhaled 1·36 lbs. of watery vapour plus the quantity condensed on the windows, &c., in the room. In a corresponding period outside, and in a cubic space equal to that of the ward, viz., 19,267·2 cubic feet, there was 9·95 lbs., and at 6½ A.M., 11·08 lbs., showing a total increase of 1·13 lbs., being ·23 less than the increase in the ward. It was raining during the night.

Estimation of Carbonic Acid in the Ward (windows closed) during same night.

At 11½ P.M., the amount was 0·107 per cent., or 1·07 per thousand volumes; at 2 A.M., the amount was the same; at 6 A.M., it rose to 0·191, or nearly 0·2 per cent., showing a total increase of 0·084 from 11½ P.M. to 6 A.M., when our last observation was tested. The mean of the three observations was 1·35 volumes of carbonic acid in 1,000 of air, showing considerable impurity.

SECOND EXPERIMENT, in Wards 6 and 7, and in one of the Casemate Wards, during the night of November 23, 1860.

The observations of this night are given in the following tables:—

Observations showing Hygrometric Conditions of Wards 6 and 7.

	Temperature at the Dew Point.	Elastic force of Vapour.	Degree of Humidity.	Vapour in a cubic foot of Air.*
Ward 6.				
10 P.M. Dry bulb, 51½°; wet, 48°.	44	0·2935	77	3·35
12 P.M. Dry bulb, 51°; wet, 47¾°..	44·3	0·293	78·5	3·225
1 A.M. Dry bulb, 50°; wet, 47° ..	43·8	0·286	80	3·3
2 A.M. Dry bulb, 50°; wet, 46⅞° ..	43·3	0·280	78·5	3·225
3 A.M. Dry bulb, 50°; wet, 46¼°..	42·3	0·270	75·5	3·075
4 A.M. Dry bulb, 51°; wet, 48° ..	44·9	0·299	80	3·4
6 A.M. Dry bulb, 52°; wet, 49½°..	47·45	0·322	83	3·65
Ward 7.				
6 A.M. Dry bulb, 53°; wet, 49¼°..	47·2	0·325	75	3·7

* The numbers here represent the quantity in grains.

Observations on amount of Carbonic Acid during night of November 23, in Ward 6, &c., in 1,000 volumes of air:— (windows alternately closed and opened).

Ward 6. 10 P.M.	Ward 6. 12 P.M.	Ward 6. 1 A.M.	Ward 6. 2 A.M.	Ward 6. 3 A.M.	Casemate Ward. 3 A.M.	Ward 6. 4 A.M.	Ward 6. 6 A.M.	Ward 7. 6 A.M.
1·358	0·480	1·217	1·427	0·590	1·348	1·119	1·712	0·895

Remarks.—These observations were taken hourly in Ward 6, from 10 P.M. to 6 A.M., inclusive, during the night of November 23; the night was fine; there was a slight fog, which came on towards morning; an observation was also taken in Ward 7, at 6 A.M., and in a casemate ward, at 3 A.M. In Ward 6, there were 21 patients, one gas-light, but no fires burning; the windows were closed in part at 10 P.M., opened until 12 P.M., closed again until 2 A.M., open from 2 A.M. until 3 A.M., then closed until 6, our final observation. They were never opened more than 4 inches, but the effect even

of this ventilation on the amount of carbonic acid was very marked, as may be seen on reference to the amounts at 10 and 12 o'clock, and again at 2 and 3 o'clock. In the Casemate Ward, up to 3 A.M., the windows had been closed, one fire was burning; 14 men (orderlies) occupied it. In 7 Ward, at 6 A.M., the windows were closed during the evening; one fire had been burning during part of this time; 15 patients in it.

Series of Hygrometrical Observations on external air during the night of November the 23rd:—

	Temperature at the Dew Point.	Elastic force of Vapour.	Degree of Humidity.	Vapour in a cubic foot of Air.*
10 P.M. Dry bulb, 42°; wet, 41° ..	39·8	0·245	92	2·8
12 P.M. Dry bulb, 38½°; wet, ¾°	36·75	0·2185	95·0	2·6
2 A.M. Dry bulb, 36°; wet, 35½°..	34·75	0·2025	95·5	2·35
4 A.M. Dry bulb, 37°; wet, 36° ..	34·6	0·200	91	2·3
3 A.M. (Pit Ward). Dry, 55°; wet, 51°	47·2	0·325	75	3·7

* The numbers here express the weight in grains.

Observations showing the influence of Ventilation on the Hygrometric Conditions of a Ward:—(No. 7).

	Temperature at Dew Point.	Elastic force of Vapour.	Degree of Humidity.	Vapour in a cubic foot of Air.	Vapour required to saturate a cubic foot of air.
4 P.M. Windows open. Dry bulb, 49°; wet, 46°	42·8	0·276	79·0	3·1	0·9
5½ P.M. Windows closed since 4. Dry bulb, 55°; wet, 50° ..	45·2	0·302	70·0	3·4	1·5
7 P.M. Windows open since 5½. Dry bulb, 45°; wet, 41° ..	36·4	0·214	72·0	2·5	0·9
8½ P.M. Windows closed since 7. Dry bulb, 53°; wet, 49° ..	45·0	0·299	74·0	3·4	1·1
5½ P.M. Outside. Dry bulb, 36°; wet, 35°	33·3	0·193	91·0	2·5	0·3

Remarks.—That the opening of the windows, thereby allowing the external air free entrance, has a considerable influence on its hygrometric conditions, causing its tempera-

ture to fall several degrees, its relative degree of humidity to be increased in cases where the atmosphere is highly charged with moisture, as, whilst raining, its elastic tension to become decreased. The weight of vapour in a cubic foot of air was much less after the windows had been opened for some time. Its carbonic acid was always in a large ratio, being more according to the number of men present, as shown by former and subsequent observations. The state of this Ward, viz. 7, was as follows:—17 men occupied it; there were two fires and one gas-light burning during the hours intervening between 4 and 8½ P.M.

XI.

Observations on the amount of Carbonic Acid and of Watery Vapour in the Atmosphere of some of the Wards at Fort Pitt, with the ordinary Ventilation.

By CHARLES H. Y. GODWIN, M.R.C.S. and JOHN WALTERS, M.R.C.S., M.B., Lond., *Medical Candidates for the Army.*

The normal quantity of carbonic acid in the air may be assumed to be 0·4 volumes in 1,000. The acid has been taken as the standard of impurity on account of the uncertainty of the process for estimating the organic matter; its amount has been ascertained by Pettenkofer's test.

The observations were made during several nights in a front and back ward of each floor of the central building, and also in one of the casemate wards, which resembles the others, and which presents the most unfavourable conditions for good ventilation.

The hours of 3 and 4 A.M. were selected, as at this time the impurity of the atmosphere is probably at its highest point; the ventilation of the Wards was in no case altered, as the object was simply to ascertain the amount of carbonic acid under ordinary circumstances. The means for ventilation are described in the table.

The average amount of carbonic acid present was 0·809 volumes in 1,000.

The greatest amount was found in F Ward (casemate), November 20th, when all the windows were shut, namely, 1·22 volumes in 1,000, or three times the proper quantity, indicating great impurity of the atmosphere.

The smallest amount was found in No. 12 Ward, on November 12th, with an open window and a fire burning in the ward, namely, 0·508 volumes in 1,000, which is very slightly, if at all, in excess of the normal amount.

Day of Month.	Ward.	Total cubical space in feet.	Cubical space, after deductions for furniture, bedding, and persons, in feet.	Number of patients present.	Allowance of cubical space in feet for each person, at the time of the observation.	Means of Ventilation.	Hour.	Length of time patients in bed.	Carbonic acid in 1,000 parts of air.	Dry bulb Thermometer, (Fah.)	Wet bulb Thermometer, (Fah.)	Weight of watery vapour in a cubic foot of air.	Relative humidity.
										Deg.	Deg.		
Nov. 12	2	19,113	18,908·9	19	995·2	9 windows, 5 on one side, 4 on the other; 1 door. Perforated plates in the ceiling, the apertures in the aggregate amounting almost to a square foot. 1 open firegrate, without fire, at each end.	3 A.M.	7 hours	0·894	50	47	3·3	80
„ 13	Ditto	Ditto	18,900·9	21	900	Ditto	Ditto	Ditto	0·849	52	51	4·1	93
„ 13	6	19,113	18,900·9	21	900	Same as in Ward 2; 3 windows being open	4 A.M.	8 hours	0·800	53	51	3·9	86
„ 20	Ditto	Ditto	Ditto	21	Ditto	Windows all closed.	3 A.M.	7 hours	0·864	51	48	3·4	80
„ 17	7	19,113	18,904	20	945·2	Same as in Ward 2; windows all closed.	12½ A.M.	4½ hours	0·824	56	53	4·1	81
„ 17	10	18,110	17,822	20	891	Same as in Ward 2; windows all closed.	3·15 A.M.	7¼ hours	0·838	55	53	3·9	86
„ 18	Ditto	Ditto	17,826	19	938	2 windows open.	Ditto	Ditto	0·570	46	43	2·8	79
„ 12	12	7,222	7,096	5	1,419·	1 fire burning. 2 windows on same side, 1 of which was open. 2 doors. Aperture in wall opposite windows, foot in diameter. 3 perforated plates in ceiling.	3 A.M.	7 hours	0·508	54	50	3·5	74
„ 18	Ditto	Ditto	7,100	4	1,775	Same, only both windows closed. No fire.	3·30 A.M.	7½ hours	0·726	49	43	2·5	62
„ 18	14	18,110	17,830	18	990·6	Same as Ward 2; 7 windows open.	4 A.M.	8 hours	0·729	48	44	2·8	73
„ 20	Ditto	Ditto	17,822	20	891	All windows open.	3·30 A.M.	7½ hours	0·772	48	45	3·0	79
„ 17	1 Casemate	11,770	11,594	16	724·6	Windows at each end, 1 being open. 2 doors opposite. 1 grate, without fire.	3·45 A.M.	7¾ hours	0·928	54	51	3·8	80
„ 20	Ditto	11,770	11,602	14	828·7	Windows all closed.	3·45 A.M.	Ditto	1·221	50	48	3·5	86

XII.

HOSPITAL TRANSPORT:—HOSPITAL STEAMSHIPS, "MAURITIUS" AND "MELBOURNE," EQUIPPED FOR SERVICE IN CHINA.

THE following is a brief description of the general arrangement for the accommodation of the sick provided in each ship:—

The "Mauritius."

In this ship are three decks: the spar-deck, upper troop-deck, and lower troop-deck. The upper troop-deck is chiefly appropriated to the various offices necessary to an hospital-transport, and the lower troop-deck is fitted for the reception of sick and wounded. The butchery and privies are on the spar-deck, but the ablution-rooms, wash-house, drying-room, and bakehouse, are on the main or upper troop-deck. On the port side of the upper troop or main-deck eight single berths are fixed, and the lower troop-deck is divided into three water-tight compartments, in which the berths are arranged as follows:—

Along the sides of the fore compartment ten berths are arranged in a single tier, five being placed on each side; in the centre of this compartment are forty berths, arranged in pairs, and placed in tiers of two, one over the other, the upper one to be occupied by slight cases only; and, in addition, four cots are fixed between the iron stancheons of this part of the vessel. The space for each person amounts to 320 cubic feet. All the berths are 6 feet 3 inches by 2 feet 6 inches, the single ones being 2 feet 3 inches from the deck below. The berths in tiers are 3 feet apart, the lower ones being 1 foot from the deck below, and the upper ones 4 feet from the deck above.

The middle compartment has the engine-room, &c., in its centre, boxed off. In it seventy-two berths are arranged in two tiers, one above the other, in the same manner as those in the middle ranges of the fore compartment. Arm-stands are placed around the boarded partition which incloses the engine-room.

In the after compartment are seventy-four berths, arranged in the same manner as those in the fore compartment, making a total of 204 fixed berths and eight cots.

There is room, in addition, for hammock accommodation for the attendants. The space for each person amounts to 223 cubic feet. A few short ladders have also been placed on board to enable the men to get into the upper berths. In the after compartment is a space divided off for a baggage-room; the mess-tables, forms, &c., are placed chiefly on the main-deck, but there are a few in convenient situations below. The pack-store and issuing-room are placed under the fore compartment. An examination of the accompanying sketches, detailed fittings, &c.,* will explain more fully the different arrangements on board this vessel. The sick will be dieted on the usual scale of military hospitals, by an officer of the Purveyor's Department stationed on board.

Ventilation and Warming.—The deck is ventilated by means of hatchways, ports, tubes, Dank's ventilators, and two tubes connected with the galley fire. Heat in the centre compartment is obtained from the engine-room, and in the two other compartments from swinging and cabin stoves.

The supply of water is provided in a similar manner to that for the steam-ship "Melbourne." (*see* page 340).

The surgery in this vessel is similar to that of the "Melbourne."

Arrangement of Offices.

On Spar Deck:—

1. The Privies, eight in number, are placed four on each side of this deck, before the beam, and are of the following dimensions:—Fore and aft, 4 feet 2 inches; athwart, 4 feet 6 inches; height, 6 feet. There are two seats in each, separated by a partition. There is a urinal in front of the privies, on the port side, and abaft there is a shaft through which night-stools, &c., can be emptied.

2. Butcher's house.—Dimensions: fore and aft, 7 feet; athwart, 7 feet; height, 6 feet; fitted with meat-hooks, &c.

On the Upper Troop or Main Deck:—

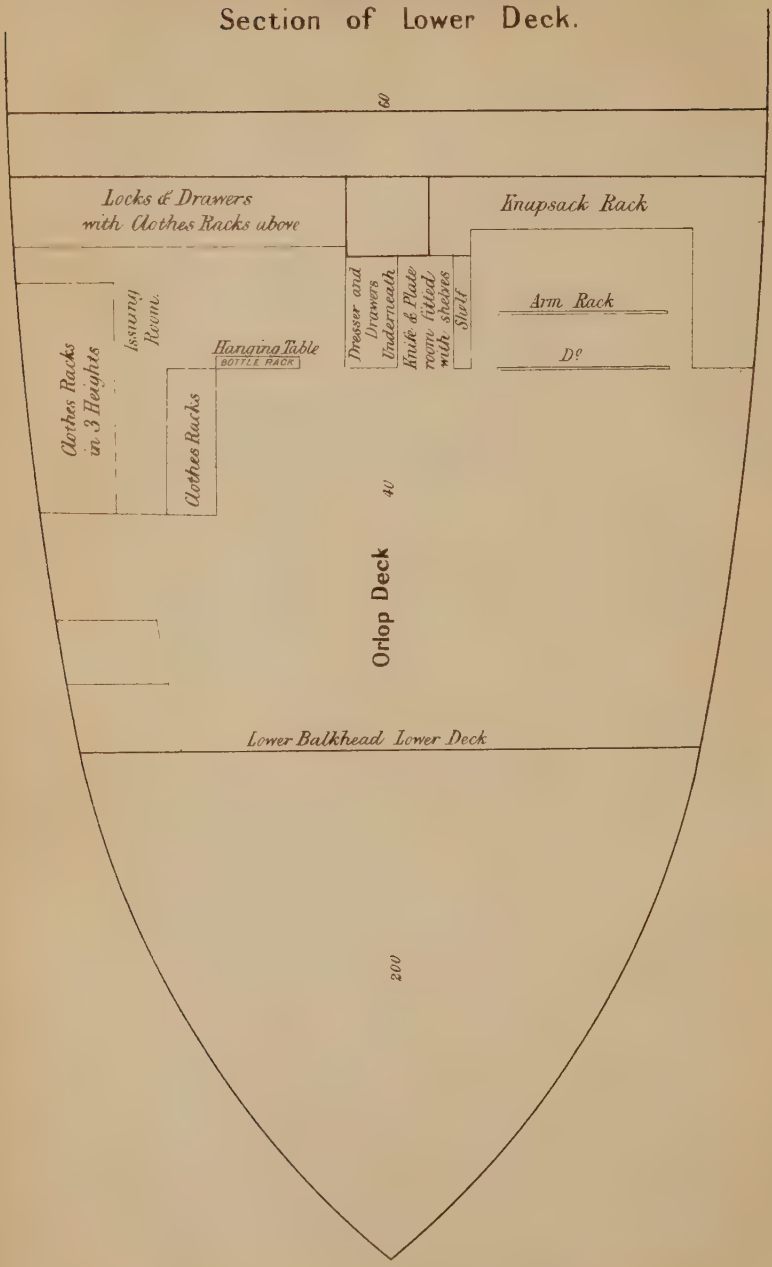
3. Ablution-room.—Dimensions: fore and aft, 12 feet; athwart, 7 feet 6 inches; height, 8 feet; fitted up with hooks, two baths, basins, &c.

4. Wash-house.—Dimensions: fore and aft, 10 feet; athwart, 7 feet 6 inches; height, 8 feet; fitted with a large trough, lined with lead.

* Appendix, No.

S.S. MELBOURNE.

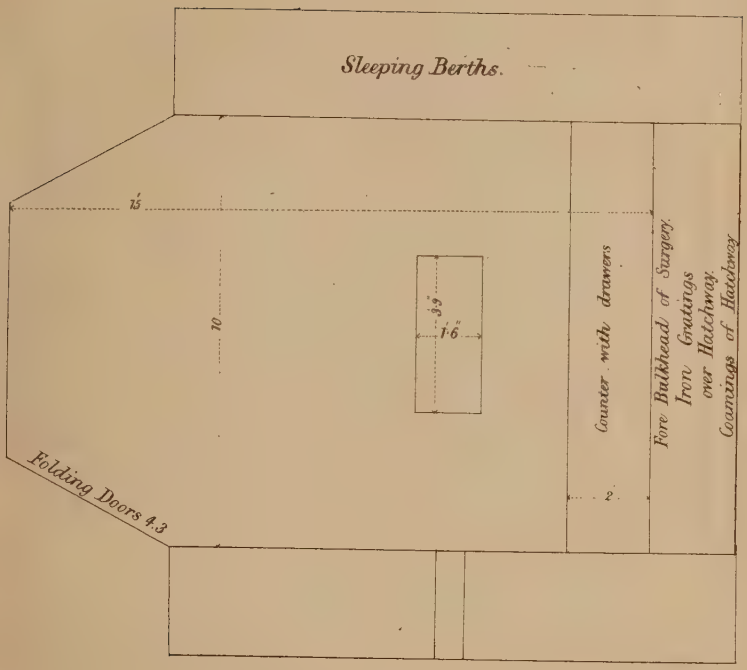
Section of Lower Deck.



Day & Son. Lith.rs to the Queen

S. S. MELBOURNE.

Surgery.

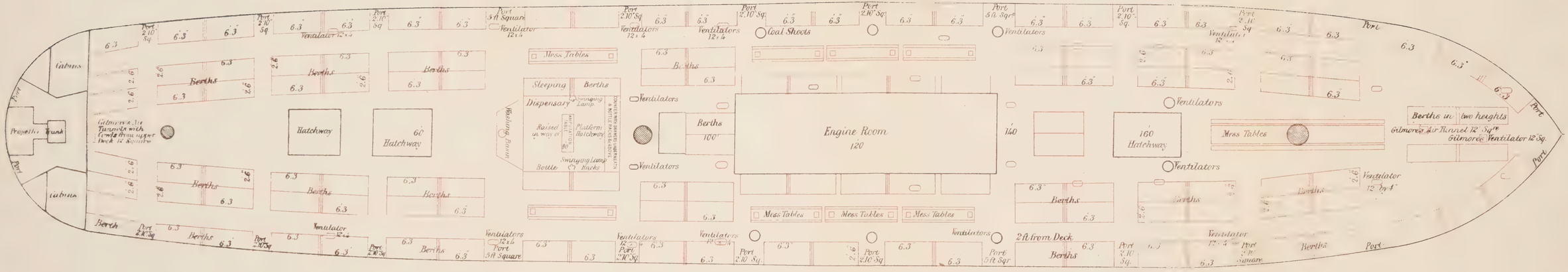


Day & Son, Lith.rs to the Queen.

STEAM SHIP "MELBOURNE" LOWER DECK.

SKETCH OF FITTINGS AS A HOSPITAL SHIP.

Only the lines "in Red" refer to the fittings.
Dec.r 31st 1859.



Surgery with operating table placed under a hatch and Skylight.
The figures 60, 80, 100, 120, 140, 160, refer to the length of the Ship.

Day & Son, Lith.rs to the Queen

5. Bakehouse.—Dimensions: fore and aft, 10 feet; athwart, 7 feet 6 inches; height, 8 feet; fitted with shelves and baking-boards.

6. Drying-room, lined with metal.—Dimensions: fore and aft, 10 feet; athwart, 7 feet 6 inches; height, 8 feet.

The "Melbourne."

Accommodation.—On the lower deck of this ship—which is 208 feet in length, and 35½ feet in breadth, the height between decks being 6 feet 4 inches—are placed 120 fixed berths, and six cots for the accommodation of sick men; also twenty sleeping berths, and hammocks for the orderlies.

The berths are arranged fore and aft, in single tiers, at a distance of two feet from the deck below, and four feet from that above, the ends of the berths being separated from each other by an interval of six inches. There are three ranges of these berths on each side of the ship; one a single row, running round close to the sides of the vessel, the others, along the middle of the ship, each being a double row of berths, placed side by side, with a partition-board fifteen inches high between each pair. A passage three feet in breadth, separates the row of berths round the sides of the vessel from the adjacent central range; between the latter and the corresponding range of the opposite side is an interval of ten feet, affording space for mess-tables, forms, &c., which are so constructed as either to be fixed up against the beams or removed altogether, as occasion may require.

In the centre of the ship, aft, between the iron stanchions, are spaces for six cots, adapted for the reception of very bad cases.

Each berth is 6 feet 3 inches long, 2 feet 6 inches wide, and is fitted with a moveable galvanized metal bottom; and the following articles are placed on board, to be used at the discretion of the Principal Medical Officer:—

Hair and flock mattrasses,
Hair and feather pillows,
Hair bolsters,
Counterpanes,
Blankets,
Sheets,
Swinging trays,
Ropes and handles for the sick to raise themselves by,
Ring for holding a chamber utensil,
Crockery pint mugs, basins, knives, forks, and spoons,

and every requisite of diet provided by a Purveyor's Clerk stationed on board.

Ventilation.—This is obtained by means of hatchways, ventilating shafts, ports, and two of Danks' patent ventilators. The whole deck is open to thorough ventilation, as the short partition aft is freely perforated by $\frac{3}{4}$-inch openings in zinc frames above, at the centre, and at the lower part.

The deck is heated by means of three swinging and two cabin stoves.

Supply of fresh water is kept up by a steam condenser, making upwards of 1,000 gallons daily. There are no fixed water-closets between decks, but Fyffe's inodorous closets in sufficient numbers (four on each side) are placed on board.

Surgery.

The Surgery, which is 15 feet by 10 feet, is furnished with every requisite for dispensing; it is ventilated by openings in a zinc frame in the upper part of a bulk-head. In the centre is placed an operating table, above which is a skylight sufficiently large to admit of a man requiring operation being lowered into the surgery from the deck.

New Railway Hospital-Carriage.

In a paper on the hospital arrangements at the Camp of Chalons, published in the *Récueil de Mémoires de Médécine Militaire*, for 1859, M. Jules Périer, Médécin-en-chef, gives the following description of an hospital carriage, fitted up for the conveyance of the sick by the railway from the Camp to Chalons, in the hospital of which town the more serious cases occurring in the force were treated:—

"As I considered it necessary that the sick should be completely separated from the other passengers, the Intendant agreed that a special carriage should be provided for their accommodation. But, however well adapted a third-class carriage might be for those who were able to sit, it was not at all suited for the conveyance of sick in the recumbent posture. I therefore expressed my wish that a hospital carriage should be provided; and it appeared to me that a baggage waggon could without difficulty be fitted up for the accommodation of patients, either sitting or lying down, as the nature of their cases might require, and in which they might be attended to, and if need be receive medical aid. The Intendant, having considered my proposal, and having at the railway station satisfied himself of its practicability, drew up, for the approval of the Minister of War, the terms of agreement by which the company were to place such a carriage at the disposal of the military administration. I may here remark, that the average number of sick for whom transport from the Camp to Chalons would be required out of a force from 12,000 to 15,000 men, could not be much less than 10 daily; the company, therefore, could be guaranteed the minimum rate of remuneration for the conveyance of 10 persons, during the period extending from the 1st of July to the breaking up of the Camp. In order that the proposals submitted on this subject for the approval of the

Minister of War, should be complete, M. Topéin, the Accountant of the Military Hospital, and I, took the necessary steps to prepare the carriage for the purpose for which it had been selected. The arrangements which we proposed having been carried out, I shall now describe the hospital carriage in which our sick were conveyed from the 1st of July to the 20th of October last. The interior of an ordinary baggage waggon is 17 feet in length by 7½ in breadth; it opens on each side by two sliding doors, 3 feet 4 inches in breadth; in front of the waggon is placed the breaksman's seat, and the stage which supports this raised seat encroaches to the extent of 4 feet 9 inches on the length of the interior; the sides of it, however, can be made available for the accommodation of two sick lying, and likewise provide seats for one or two attendants. In the space remaining unoccupied, 12 feet 3 inches in length, five moveable benches were arranged transversely, the back of the bench furthest from the doors resting against the posterior wall of the carriage, the others were placed in the same manner in front of it, so as to leave room between them for the sick to sit down; all of them were furnished with backs, and each held five persons. In four of the benches, and on the same side, the backs were four-fifths of the length of the seats, so as to admit of the attendants stepping over them and having access to all the rows. Each bench being moveable, its place could be occupied by a litter, and when one only was required, room was found for it without either overcrowding or removing any of the benches, but simply by reducing the space between each. These arrangements afforded room for 25 sick sitting and 2 lying on mattrasses, placed on each side of the stage of the breaksman's seat already mentioned.

Bed Litters.—The ordinary litters of the hospital could not have been made use of without encumbering the carriage, the width of which, as I have already stated, is 7½ feet, which is less than the entire length of the ordinary litters; six bed litters, therefore, with moveable sides, were constructed according to our directions. Of these, two for each division were kept in the field hospitals of the camp, and were at all times available for the conveyance of the sick of the different corps who were not in a fit state to be placed in an ambulance waggon. On field days one of them was always placed behind each of the hospital store waggons which followed the movements of the force. Thus, either in camp, beside the tents, or at the field hospital, or on the ground where the evolutions were taking place, a patient might be placed on the bed-litter, from which he would not require to be again removed until his arrival in the wards of the hospital at Chalons. They were surrounded with a curtain, for the shelter of the sick, spread over four rods, corresponding in size to the sides and ends of the litter, and supported by four upright bars, one having a hinge by which the frame could be lowered. This plan, contrived by the Intendant at Boujeiah enabled the litter to be uncovered to such an extent as might be required for placing or removing the sick, or affording them assistance. The bed letters have been of real service to us, not only on account of the ease with which they can be placed and arranged in the hospital carriage, but as sustitutes for beds, their excellent construction allowing them to be used as such for patients whom it would be unsafe to move. We would here remark that no conveyance, for either sick or wounded, can for safety or convenience, in our opinion, equal the litter. To appreciate those cases in which its employment is indispensable, and to see that it is provided for the conveyance of such, are important points in the duty of a regimental surgeon, who ought never to dispense with its use simply on account of the number of bearers it requires. By closing more or less, according to the direction of the wind and temperature of the air, the closely fitting sliding doors of the carriage, the necessary amount of ventilation was obtained; and for the protection of the sick from accidents, wooden bars were placed breast-high across the doors, either of which, and sometimes both, remained open during the journey."

XIII.

ARMY MEDICAL SCHOOL.

THE School intended for the special training of Physicians and Surgeons, about to enter the Medical Service of the Army, as recommended in the Report of the Royal Commissioners for inquiring into the Sanitary Condition of the Army, has been established at Fort Pitt, Chatham.

Three Professors have at present been appointed, viz.:—

THOMAS LONGMORE, Esq., *Deputy Inspector-General of Hospitals, Professor of Surgery.*

E. F. PARKES, M.D., *Professor of Hygiène.*

WILLIAM AITKEN, M.D., *Professor of Pathology.*

The School was opened on the 2nd October, when forty-three gentlemen, intended for the Royal and Indian Armies, and who had been selected from other competitors at the examination held in London in July and August, attended. The Right Honourable the Secretary of State for War, Mr. Sidney Herbert, and Dr. Gibson, C.B., Director-General of the Army Medical Department, were present. Major-General Eyre, commanding at Chatham, and various Military and Medical Officers, also attended the opening lecture, which was delivered by Professor Longmore.

After the lecture, some observations were made by Mr. Herbert, Major-General Eyre, and the Director-General.

A second lecture was delivered by Mr. Longmore, on the 9th of October, which was also attended by General Eyre, at the request of this Officer, as well as of the rest of the audience, it is now published, as it gives an extremely good sketch of the Regulations which affect the Medical Officers of the Army, and on the relations between the Medical and the other Departments of the Army.

Introductory Address delivered at Fort Pitt, Chatham, on the Opening of the Army Medical Practical School.

By Deputy Inspector-General T. LONGMORE, *Professor of Military Surgery.—October* 2, 1860.

Gentlemen,—In commencing any undertaking,—whether a scientific investigation, a course of study, or some physical operation,—it is the part of a prudent man to take a general survey of the ground he has to pass over, to form calmly a definite estimate of the purpose he has in view, and carefully to weigh the means at his disposal for insuring success in the attainment of his object. Acting on this principle, it is the custom of each professor, in the civil schools, to employ his opening lecture in unfolding, before his class, a map, as it were, of the province on which he is to treat, pointing out its leading characteristics, and tracing the outlines of the several sections which compose it, and which have subsequently to be travelled over and studied in detail. But on this occasion something more is required. We are not commencing a sessional course of study, but are inaugurating a new and very important work,—the establishment of a fresh element in army medical education in England; and it behoves us, therefore, to take a wider range, and to consider, as far as time will allow, the succession of events which have led to the formation of this school, its plan, and the benefits which it may be expected, we, who are members of the Medical Department, as well as the State at large, are likely to derive from its influence. At a recent meeting of the Senate of the Army Medical School, it was ordered that the professor on whose lecture day, as set apart in the syllabus of the course of study, the opening of the school happened to fall, should give an address on these subjects, and it has fallen to my lot to do so. I, therefore, now meet you for the purpose of obeying the directions of the Senate to the best of my ability.

In the year 1794, when John Hunter published the essay on *Gun-shot Wounds* in connexion with his celebrated work on the blood and inflammation, he wrote—so low was the character of military surgery in his estimation, himself not

without experience as a military surgeon.*—that "it was hardly necessary for a man to be a surgeon to practise in the army." Even so late as that period (1794), the medical officers, on entering the service, occupying the same position, and available for the same duties, as those now performed by assistant-surgeons, had not even the honour of holding a Royal Commission, but were only warrant officers; while the higher grades of the department were, for the most part, filled by surgeons and physicians who had never served in the junior ranks. The advantage of the stimulus, which a prospect of promotion according to definite regulation affords, was thereby lost; and the very inferior position in the social status, the low rates of the regular remuneration, and of compensation in case of disability from disease or wounds contracted on service, were little likely to act as incentives to the well-informed or industrious to enter the ranks of the army, or, at least, to remain in them. Still, low as the situation was of those who held the medical charge of troops by comparison with what it is now, it was greatly superior to what it had been in previous reigns. In Queen Elizabeth's, for example, one of the most conspicuous periods of English history, the army surgeons, as Dr. Hennen has noticed, were classed with serjeants, fifers, and drummers, had the same pay, and were placed in other respects on a similar footing in the public service. In trying to explain this anomalous position of men, who in the earlier ages of society appear to have been regarded with the highest esteem, almost with veneration, and who were really representing a science requiring many attributes of very high order, and of vital importance to all ranks of society, especially those engaged in war, we are led to infer that the military surgeons of the Elizabethan era were as inferior in their attainments and usefulness as their position was degraded. The general laws of health were wholly unknown, and the particular departments of medicine and surgery were destitute of all those valuable attributes which they have acquired in our time from a more intimate

* The celebrated John Hunter served as a surgeon on the staff of the army in the expedition to Belleisle in 1760, and in the same capacity in Portugal in 1763. In 1786 he was made Deputy Surgeon-General, and, in 1791, Surgeon-General of the Medical Department of the British Army,—a laborious office, corresponding with that of the Director-General under existing arrangements. He held this office during the early part of the war with France which preceded the peace of Amiens. After Hunter's death the direction ceased to be vested in an individual, and, instead, an Army Medical Board was constituted, consisting of a Physician-General, Surgeon-General, and Inspector-General of Hospitals.

acquaintance with anatomy, physiology, and the allied sciences. So little regard was paid to the physician's art at the period to which I have just referred, owing, beyond doubt, to the ignorant and superstitious practices on which it chiefly depended, that one of the greatest cultivators of natural science who ever lived, Lord Bacon, thought right to observe :—"Physicians are of little use to temperate persons. A man's own observation on what he finds does him good, and what hurts him, is the best physic to preserve health." The preservation of health, whether as applied to individuals, or, especially, to communities of men, is now acknowledged to be by no means a matter of such common and ready attainment, but a science requiring deep and special study; a science demanding acquaintance, not only with all the varied functions of the human frame, but also necessitating a knowledge of the physical laws which influence those external operations of nature with which our existence is so inseparably associated.

As general knowledge increased, and the medical art itself became more worthy of the name of a science, the importance of obtaining well-educated surgeons for the army was gradually, *pari passu*, appreciated. Men prominent for their abilities were sought for to fill the higher appointments. The qualifications of the regimental surgeons were more inquired into, and their position was in proportion improved. I have already mentioned that, at the beginning of this century, assistants, on first joining "Hospital Mates," as they were then called, were warrant officers. In the year 1813 this arrangement ceased, and the assistant-surgeons were commissioned by the King. In the year 1830, and again in 1840, increased remuneration, and other advantages, were conceded to the medical officers, and but little change subsequently occurred up to the period of the late war with Russia.

At the time of that war, the surgeons of the British army, in regard to their pay and social status were, in most respects, as advantageously placed as the surgeons of the foreign armies with whom they were brought into contact; but in respect to the opportunities afforded for obtaining special knowledge in the military medical and surgical art and duties, the latter had long possessed exclusive advantages. Such were the schools of instruction which had been established by the Continental Sovereigns and Governments for the improvement of their military surgeons, and the collections of regular reports and observations from the army hospitals, which, in France, were commenced nearly a

century ago. And these superior opportunities of improvement were not confined to purely medical and surgical matters. I may mention as a special instance of the educational advantages enjoyed by our Continental brethren, that, while no means of preliminary study on the subject of hygiène existed for the British surgeon at that time, full instruction, on every question of sanitary import, both scientific and practical, was afforded at the Val de Grâce to the French medical officers before they commenced their military duties.

The war with Russia was fated to lead to important changes in these and many other circumstances of British medical officers. The army had scarcely been collected in Turkey, or the subsequent operations in the Crimea commenced, before attention was specially attracted to their qualifications, duties, and influence. I need hardly remind any one present of the disease which caused such severe losses among the troops in Bulgaria, nor of the deficiency in surgical appliances, and means of transporting our wounded, which became manifest after the battle of the Alma, nor of the great mortality during the siege operations in the winter of 1854–55. The Commissions which were ordered, one after the other, in consequence of these events, terminating with the Royal Commission, which inquired generally into the regulations affecting the sanitary condition of the army, and the organisation of military hospitals, must be remembered by all. The work accomplished by means of those inquiries, it is believed, will produce good far outweighing the original suffering which led to them, great as it was; for that suffering was temporary and limited, while the good results will be unlimited in duration, and will prevent, it is hoped, the possibility of a recurrence of the circumstances which caused it. Great benefit was conferred by the investigations of these several Commissions on the officers of the Medical Department. When the amount of sickness and loss of life were first realised by the nation, the surgeons had to sustain no little amount of obloquy, and, for a time, the Army Medical Department was placed, as it were, on its trial. The several Commissions, however, brought in a verdict of acquittal in favour of the great body of British surgeons; and elucidated the fact that what were supposed to have been faults in administration, had, in the main, arisen from limited resources, and from extrinsic influences over which the medical officers had no control. The whole department was proved to be in a very dependent position compared with the engineer and other scientific branches of the army.

Although the right performance of the departmental duties was held to be of the greatest importance, there was no responsibility in its officers. For there can only be responsibility where there is also power; where dependence can be placed on fixed results following fixed lines of conduct. Great evil was found to be the consequence of this state of affairs. The army was deprived of the advantages which would have constantly, in the daily routine of business, sprung from the energy and higher character which a more responsible status would have impressed on its medical officers; and, moreover, such a habit of passive helplessness was engendered, that, when a sudden demand for immense efforts arose, as in the outbreak of a great war, there was no power of elasticity equal to the occasion, the whole system was cramped and half paralyzed, while it was evident that any sudden breaking asunder of the bonds by which it had been so long tied could only lead to still more inconsistent action, and still greater confusion.

The labours of the Royal Commission before mentioned, terminated in developing a scheme for putting a stop to all these evils, by a complete re-organization of the Army Medical Department. Its plan of administration; its relations to other Departments; the rules affecting its interior economy; the mode of admission of new members into its ranks, and their preparation for its duties, were re-modelled.

It is with the last of these that we have now to do, for the establishment of the Army Medical School is part of the plan for a more efficient preparation of the army surgeon; a plan by which an opportunity is to be afforded to each novitiate of laying a foundation of the specialities of military medical knowledge, on which will afterwards be raised, it is to be hoped, an extended superstructure of practical usefulness. The want of an institution of this nature had long been under the notice of the Government authorities. There were before them, in the first place, the examples on the Continent, where a necessity for keeping large standing armies existed, and where, therefore, it was most probable, in the usual order of things, that the best mode of perfecting those armies in their various parts, would be adopted. In France, even so early as 1747, schools of military surgery and medicine had been established at the army hospitals in those cities where large garrisons were usually collected. No military medical school was established at Paris until a later date; but it must be remembered that all the chief scientific establishments connected with the French army

were, at the period referred to, at Metz, Strasbourg, Toulon, Lisle, and other garrison towns, and that it was not until a more recent date that the extensive fortifications which now exist at Paris were constructed, or that a large garrison of regular troops could be accommodated within its precincts. The attention of the English Government was first seriously attracted to this subject, however, by an earnest appeal of the distinguished surgeon and teacher, Mr. John Bell, in 1798; written on the occasion of his going from Edinburgh to Yarmouth to watch the treatment of the wounded sailors after the battle of Camperdown. A great portion of the memoir, which Mr. Bell addressed to the First Lord of the Admiralty at that time, may be found in the late Sir G. Ballingall's published lectures. In this document, which is written in very forcible language, Mr. Bell called attention to the defective condition of the naval surgical service; proposed, to use his own words, the establishment of "one great school of military surgery," and enumerated a list of the topics which should be there studied by the naval and army surgeons. This letter appears to have had influence in the subsequent formation of the Military Surgery Chair at Edinburgh, which was first occupied by Dr. Thomson, author of the "Observations on the Military Hospitals of Belgium, after the Battle of Waterloo." It was in 1806 that Dr. Thomson was appointed Professor of Military Surgery, but he had previously given a short course of lectures on military surgery, in 1804, at a time when there was great military excitement throughout the nation, arising out of the renewal of hostilities with France, and a prevailing apprehension of invasion. This was the period, too, when Dr. Robert Jackson, in his celebrated treatise on the "Medical Department of Armies," advocated the establishment of an "Army Medical Practical School," in connexion with the Invalid Depôt, which then existed in the Isle of Wight. This book was published in 1805, and in it Dr. Jackson unfolded a system of education for army surgeons,—including a general examination previous to their admission as candidates; a course of subsequent study in army specialities, and examination in these specialities before being commissioned; a further test before promotion; and other details, which you will find, on reference, almost precisely correspond with the rules laid down in the recent orders on these subjects. Dr. Thomson resigned his appointment of Professor of Military Surgery at Edinburgh, in 1822, and in the course of the following year it was conferred by the Crown upon Sir G. Ballingall, whose work

entitled "Outlines of Military Surgery," has been for some years the chief, and almost the only general work on this subject for British army surgeons. In the year 1846, Mr. Tufnell began a similar course of lectures in Ireland; and about the time of the commencement of the late war with Russia, at the instigation of Sir De Lacy Evans and other general officers, Government proposed, and the House of Commons voted, an annual sum for the endowment of this chair at Dublin, and for the establishment of another in London. The latter appointment was not filled up, and the defective sanitary and surgical arrangements in the early part of the Crimean war, so concentrated attention on the Medical Department, as before observed, and led to inquiries on such an enlarged scale, that the question of the establishment, or otherwise, of an individual chair, became comparatively insignificant. The subject of army medical education was investigated in its widest extent by the Royal Commissioners, and one result of their deliberations was the recommendation to Her Majesty,—"That, after the first examination, candidates be sent to a military general hospital, there to go through a course of military hygiène, and in clinical military medicine and surgery, for which purpose the necessary professorial chairs, in lieu of the two now existing in Edinburgh and Dublin, should be instituted at the principal general hospital in England." In arriving at this conclusion, the Royal Commissioners were guided by evidence collected from many various directions, and after full examination of the systems in use in the continental military establishments. There was one, however, whose opinion, derived from large experience and remarkable sagacity in observation, exerted an especial influence in originating and establishing this school. I should hardly have presumed to refer to Miss Nightingale by name, so unostentatiously was her influence in this matter exerted, had not one of the Royal Commissioners, prominent from his high position, and by all he has done to diffuse sanitary knowledge, recently made public mention of this fact.

Some brief extracts from the lucid report of the Royal Commissioners (who were presided over by one long conspicuous for his devotion to sanitary science, and who has nowhere displayed more thorough acquaintance with the subject than in this report, Mr. Sidney Herbert,) will best show the more prominent reasons which led to this recommendation. After illustrating the extreme importance of maintaining the efficiency of armies and fleets, not so much by aiming at the cure of disease, as at its prevention, the

Royal Commisioners state:—"The medical officer should, therefore, not only be thoroughly conversant with sanitary science, but with the mode of its application to the preservation of health under every possible variety of circumstance and character. Unless he have the benefit of the experience of others, his knowledge may come too late, and may itself have been acquired at the expense of those whose lives have been intrusted to his charge. It is in a military hospital alone that the probationer can acquire the knowledge which is indispensable to the proper exercise of his profession in the army." Again,—"For the purpose of teaching military hygiène, and that branch of medicine which comprises the treatment of tropical diseases, it is stated that those chronic cases returned from abroad will be more useful than acute cases of ordinary disease contracted in England could be, inasmuch as they show results of tropical diseases which the clinical lecturer would trace back to their causes, and, by describing their original features, enable the student to recognize and deal with them whenever he might meet with them in his subsequent practice." I believe that this reasoning applies with equal force to surgical cases, although they are not referred to in this part of the report; for it is a constant source of regret among military surgeons in the field, that they have not the opportunity of seeing the results of their treatment. It cannot teach dexterity in operating to see the remnant of a limb after amputation, but valuable information may be gained by comparing the condition of a man in whom a limb has been amputated, with another in whom for a corresponding injury, conservative surgery has been practised. It has been in a great measure from subsequent observation of the condition of soldiers whose limbs had been saved after gunshot wounds of the foot, leg, and thigh in the Crimea, that the French surgeons, during the late Italian campaign, abandoned as a general rule the practice of conservation in those regions (injuries near the hip-joint alone excepted), and adopted primary amputation, not only as involving less risk of life in the first instance, but as a less painful evil in its consequences. I may also refer to a question of great practical importance which is at the present moment dividing opinion among military surgeons in France, respecting some of the effects of inflammation after gunshot injuries to bones, and the necessity for substituting disarticulation for amputation in such cases when consecutive operations are required; a question which has arisen from observations on the invalids from the Italian war, who have lately fallen under the super-

vision of M. Jules Roux, at Toulon. On these, and many other subjects concerning military surgery, differences of opinion still exist, and points of practice have yet to be settled; and one chief advantage of an opportunity for devoting a certain period to specialities of army practice, arises from the fact that, in many instances, the rule of treatment which guides surgeons under the circumstances of civil life, is rendered inapplicable by those of military life. To give an estimate of the field of observation open at the Central Invalid Depôt of the British Army, it may be mentioned that the number of soldiers who arrived and were disposed of at Chatham during the two years of the Crimean period, 1855 and 1856, amounted to 14,700, and that the average number for the eighteen years from 1839 to 1856, was considerably above 3,000 per annum.

But it is not only in this way that the site of the head-quarters of the Medical Staff offers to medical officers on commencing their career, special facilities for acquiring knowledge in the duties which will afterwards devolve upon them. The opportunity of obtaining a large fund of valuable information is presented by its pathological museum, numbering some thousands of specimens, collected by the medical officers of the army in all parts of the world, and illustrating the diseases of all the climates, and injuries under all the circumstances to which soldiers are particularly exposed. There is a very large and complete library available for purposes of reference and study. The model museum, which was formed at Dublin by the energetic exertions of Professor Tufnell, has been transferred to Chatham, and when this has been sufficiently extended so as to completely illustrate the various modes of conveying sick and wounded soldiers adopted by different armies, and in different countries, according to peculiarities of climate or surface; all the various articles of camp and hospital equipment; the panniers, carts, and waggons for their conveyance; fittings on transport and hospital ships, and many other articles of a like nature, there will be a power of educating through the eye, which cannot fail to be followed by much practical benefit.

Of course there have not been wanting objections against this institution, as there must be to every change; but I think they have been urged, for the most part, by those who have not fully considered either its objects or its advantages. Students have been told that after passing the usual examinations they must submit to be sent back again to school, if they wish to obtain appointments in the army. But it is

not right to say "*back again*:" it should be "*forward*," if regard is paid to the future pursuits of the person most interested. And are we not all our lives scholars? Is not the professional press unceasingly pouring forth valuable information derived from the labours of scientific explorers, and tending to enrich medical knowledge with fresh acquirements for the benefit of humanity? Is there not a continuous increase in the number of appliances for mitigating human suffering, with which, if we mean to meet our obligations as professional men, we are bound to become acquainted? It is true that before joining the Army Medical School, gentlemen will have reached a position entitling them to take their places as practitioners in civil life; but, even in civil life, no one would be building his hopes of future success on very sure foundation, if he acted upon the conclusion, that, in attaining that position, the time was come for him to abandon study. But, in military practice, the case is altogether different; the knowledge has really not been acquired which is necessary to fit the probationer for it. His studies have all tended towards the prime object of the great bulk of British practitioners—the *cure* of diseases or accidents; and the diseases and accidents which he has chiefly considered are naturally those which belong to civil life and an European climate. But the cure of disease, though an important part of the complex duties of an army surgeon, is by no means the chief duty; and this will be readily understood on recollecting that he is usually placed in medical charge of a body of men in the prime of life and sound constitution, and that he best performs his functions, in the eyes of the State, who has the least disease to treat, who keeps his men in the most efficient state of health, ready for any duty which the many circumstances of military life may demand. Hence a train of reasoning, and habits of thought, arise, unlike those which chiefly prevail among civil practitioners. Hence, also, the necessity of special study of hygiène in its application to military life, for the circumstances of bodies of troops involve far more urgent considerations than those which require attention when the preservation of the health of individuals is studied, or of persons associated in domestic life, as in civil society. As the works of our chief naval and military writers on preserving the health of fleets and armies become studied, the military practitioners will learn how much attention has been paid to this subject, and, in many instances, with what successful results, long before officers of health, distinct from medical practitioners, were thought of in civil communities, and will perceive of what essential importance

a particular knowledge of hygiène must be to train them for undertaking the medical charge of troops. But, in addition, what was never the case before, the sanitary duty is now a defined special office of army medical officers; and the execution of the duties of this office, while, on the one hand, made compulsory, is, on the other, supported by a weight of authority such as never before existed. Again, medical officers may expect that a considerable part of their lives will be passed in climates where diseases of very different types will be presented to them from those usually met with in England; or, if of the same type, greatly modified in their character. The habits and circumstances, too, of soldiers, whether at home or in colonies, on board ship, in cantonments, or in the field, lead to other subjects of interest concerning disease and its treatment. Hence arises the necessity for special study of tropical and other diseases to which British soldiers are liable. Then in battles, not only do whole classes of injuries occur in great numbers, which are rarely seen in civil hospitals, especially in England, where, for two centuries, we have been so favoured in the absence of wars and civil strife, but also peculiarities of treatment owing to the peculiar circumstances in which troops are placed, when engaged in military operations, have to be studied. The fitness of recruits for military service, having in view the particular duties and exercise they will have to perform, as well as the disabilities which unfit men for further service in those duties, require close attention; for, in practice, these subjects often present difficulties such as would not be anticipated by persons unconnected with military transactions.

These, and many other subjects connected with the army medical service, require preliminary study, and will repay the time and trouble in their acquisition by the saving of greater trouble and longer time in the future. So far from this "secondary schooling," as it has been called, being objectionable to the younger members of the Army Medical Department, I believe its advantages will be so manifest, that the opportunity of obtaining an insight into the specialities I have indicated will be highly prized, as, I am sure, the knowledge gained will be of practical benefit afterwards.

A change in the plan of teaching these, the more prominent subjects of study, which I have enumerated, has been thought necessary, and to this change I will briefly refer. The range of sanitary science has now become so extensive, the diseases peculiar to certain climates have been so much

more investigated of late years, their pathology ascertained with so much more precision, the specialities of military surgery, properly so called, have been so much more considered, especially in connexion with the recent important improvements in fire-arms, the subjects themselves are so distinct in their nature, that it would be inconvenient to persevere in classing them together in one set of lectures, as hitherto has been done. In attempting to do so the attention to each speciality could scarcely, in the allotted time of a course, be given with sufficient closeness; and, if limited to a consideration of general principles, the course of study would only be leading back to subjects which can be more perfectly taught in civil schools, and with which, indeed, all must be well acquainted before their arrival in this institution. "Military Surgery," the term which formerly comprehended all these subjects, was an evident misnomer. The denomination arose from the fact that the officers to whom the care of the sick, and, so far as it went, the prevention of sickness, were entrusted, have been usually styled "Military Surgeons." Surgery, which is essentially the art of healing applied to external diseases and injuries, and the manual operations for their cure, forms but a small section even of the sickness among soldiers, as it did but a small portion of the course of lectures delivered on "Military Surgery," so called. The misnomer unfortunately led to much misapprehension on the part of the civil members of the medical profession; so much so that, on the Professorship of Military Surgery being established three years ago at Dublin, one medical journal, of high repute, discussed the question—"Is the institution of chairs of military surgery, a wise and useful measure?" and concluded by asserting the negative, because they only did imperfectly what was better done elsewhere. The arguments were obviously based on an erroneous view of the function of the teacher of military surgery, as well as of the position and duties of military surgeons. It is the practical application of general principles, already acquired, to the special duties and circumstances of military life, that the authorities require we should study in the Army Medical School; and this is the object for which the Government are anxious to afford every facility.

Here is the place to give an outline of the plan and the course of study proposed to be pursued in the session now just commencing. In order that the several candidates may have a greater amount of personal intercourse with the teacher n each department of study, and in consideration of the mited accommodation in the temporary buildings of the

school, and in the wards of the hospital, it has been settled to divide the candidates at first starting into four groups. Of these four groups, one-half will be employed during the morning of each day in the practical work of the hospital, one in the surgical, the other in the medical division; the remaining half will be working, either in the laboratory devoted to hygiènic manipulations and experiments, or in the room appropriated to microscopical demonstrations. All the four groups together will attend, in the afternoon, the lectures to be delivered on the several subjects of each course of study.

As the practical work of the session will occupy four months, the fifth being devoted to examinations, it will be necessary after the first two months, that the two groups engaged in the morning work of the wards, shall change places with the two groups who have been employed in the hygiènic and microscopical rooms during the same period. By these means at the end of the four months, all the four groups, or, in other words, every candidate, will have gone through a practical course in each of the several divisions of the Army School work.

I will specify somewhat more particularly the objects of study in each department. Firstly, in the hygiènic. In this department instruction will be given in all the causes which specially affect the health of soldiers, whether diet, clothing, habitation, education, habits, and mode of life, their peculiar duties in time of peace, or situation and circumstances in time of war. The methods of determining the quality of the water the soldier drinks, of the air he breathes, and of the several articles of his food, detecting their deficiencies, adulterations, or impurities, will be described and demonstrated; and each candidate, in turn, will repeat, in the laboratory the processes he has heard described in the lecture room. The principles of ventilation, warming, draining, cleansing, and of all architectural arrangements which may render his barrack healthy or unhealthy, and the best means of remedying these when faulty from original construction, will be explained and illustrated. The great importance of a thorough acquaintance with these topic cannot be overrated; for all who are acquainted with military service are aware how frequently medical officers are appealed to for information in such matters, and, by the new regulations, not only will such appeals occur more frequently in future, but the opinion and decision of the medical officer will also have greater weight with the executive authority.

In addition to the subjects I have already named, the

professor of hygiène will consider the effects of military exercises, and the advantages of a regulated system of gymnastics; the conditions connected with particular soils and geological formations; camp diseases and army epidemics, their causes and management, and the preventive measures necessary to be adopted to meet the various sources of these and other diseases, whatever their origins may be. The effects of military life in Great Britain, in the colonies, in campaigning in various climates, in bivouac, tents, or huts, on board transport ships, will also be shown; and the sanitary regulations required for the preservation of the health and efficiency of the soldier in each condition explained; and to make the course more practical, in addition to the illustrations afforded by diagrams and models, the professor proposes to accompany his class in visits to barracks, transports, encampments, &c. whenever an opportunity of doing so shall be available.

In the microscopical room each candidate will be supplied with a microscope, and, under the professor of pathology, will be instructed, not only in the use of the instrument itself, and the mode of preparing microscopic specimens, but, with its aid, will pass through a regular course of practical study in the minute anatomy of morbid tissues. In the post-mortem inspection room, a close and scientific investigation will be made in each instance of death, under the direction of the professor; and these investigations, being accompanied by a perusal of the medical history sent from the station from which the patient had been invalided, and of the further history collected while under treatment in the General Invalid Hospital, will give the opportunity of storing up a large fund of practical instruction. The necrological register, in which the results of these inspections will have to be systematically entered by the candidates, will be of permanent interest, and its records will be capable of being turned to valuable account in many ways. The advantages of these pathological studies will not, it is hoped, be confined to the school, but medical officers generally, on becoming aware of the attention devoted to these subjects at home, will bestow more attention on the accuracy and completeness of the histories which they are accustomed to forward from abroad. The extensive collection of diseased structures, and the illustrations of the effects of injuries in war, in the museum, will be used by the professor of pathology, as means of supplying information calculated to be of the greatest advantage to the candidates, especially afterwards, when, as medical officers, they find themselves

charged with the care and treatment of soldiers labouring under similar diseases and injuries, in climates, or under circumstances corresponding with those which have furnished the materials of the professor's illustrations. The best modes of making and preserving pathological preparations for the museum will also be practically taught; so that the usefulness of this collection, already one of the best in the world of its kind, may be still further extended. The wide distribution of the medical officers of the British army gives them an opportunity of supplying such illustrations more extensively than is possessed by any other body of medical men, and I am sure this opportunity will not be neglected, if it be once known that the results of their labours will be properly appreciated and cared for on reaching their destination at the general museum of the department.

In the surgical division of the hospital, the candidate will be initiated into the regular order of duty in a military general hospital, and will be made familiar with the authorized mode of recording and registering cases, compiling returns, and preparing the reports, by means of which the statistical and professional information required by the Director-General of the Army Medical Department is supplied. While engaged in this instruction, the cases placed in charge of each candidate for observation and treatment, will serve to illustrate the consequences of a great variety of surgical diseases and injuries, incidental to military service, and will furnish material for clinical instruction. In this division will also be seen frequent examples of men rendered unfit for service by physical malformations and defects which have been overlooked in recruiting; and while the results of such mistakes will be impressed on the mind by these means, it will be part of the morning's work to acquire such a system of examination of recruits as will ensure attention to each essential point of observation, and obviate as much as possible the occurrence of oversight on the part of the surgeon, or the success of deception on the part of the man seeking for enlistment. The examination of invalids, whether men disabled by manifest incapacity for service, or men seeking to leave the service on the plea of disabilities which are exaggerated, or, as sometimes happens, altogether feigned, will be a frequent exercise. The application of bandages and splints, the internal arrangements of the cases, and familiar use of the instruments selected for use in military service, regional anatomy, with special reference to wounds, and all the various surgical operations which can be

practised on the dead body, will also form part of the practical work performed in this part of the school. Lectures on certain diseases, and the injuries to which soldiers are sepecially liable, such as gunshot wounds, and the other accidents of war; on the means of transport of sick and wounded in various countries; the surgical arrangements necessary in the various conditions resulting from military operations, and on such other subjects as may be capable of being treated in discourse, will form the occupation of the after part of the day. The pathological and model museums will afford valuable assistance in illustrating these topics.

It will also be the duty of the Professor of Surgery to point out the relations of the army surgeons to the officers of other departments of the military service, to explain the regulations authorized for maintaining discipline and good order in the army, and the overruling necessity which exists in military affairs for unity of command based on a graduated scale of power and responsibility.

The course on military medicine will consist also of two parts, the practical or clinical instructions in the wards, and the systematic lectures on army diseases. In these will be included the various methods of diagnosis of the diseases presented by sick soldiers returning from foreign stations, their history, nature, and management, and the means of detecting them in their early stages. The rise and progress of particular epidemics in British and other armies, the diseases induced in soldiers by fatigue, exposure, particular duties, intemperance, and other special causes arising from the various colonies in which soldiers are required to serve, will be considered. The hospital regulations, and the forms of the required medical returns, and instruction in the general duties of army hospitals, will also form part of the course of teaching by the Professor of Medicine.

I have thus given you an outline of the plan of study, and the particular subjects which will occupy attention at the school. It is calculated that by 3 o'clock the regular series of practical and lecture instructions will be concluded for the day, and that from that hour until the time of assembling for mess, the candidates will be free for exercise and recreation, or study in the library, those only excepted who may be occupied in duties connected with the sick in the medical or surgical divisions of the hospital.

All present are, doubtless, well aware of the valuable improvements in respect to pay, position, and pension, which, as compared with their predecessors, medical officers now enjoy, from the Royal Warrant of the 1st October, 1858, one

of the greatest boons ever conferred on the medical department of the army. My only object in alluding to this subject is, that we may consider if, on the one hand, these are our advantages, what, on the other, are our obligations, and to what results should they act as incentives. Passive enjoyment of benefits conferred, contentment with an indifferent transaction of the daily routine of business, the avoidance of reprimand or disgrace, will no longer suffice, if we intend to consult the satisfaction of our own minds, or secure advancement in our profession. There have always been many exceptions to success following such a line of conduct as I have just indicated, men who have risen by active, and not passive qualities, but what have hitherto been exceptions, must in future become the rule. All the changes which have lately been made in the department have this purpose in view. For the several changes themselves we owe a deep debt of gratitude to the members of the Royal Commission who recommended them, especially to the late Director-General, Mr. Alexander, who, as one of the members, worked so earnestly and so sincerely to obtain them; and to the present enlightened Secretary of State for War, Mr. Sidney Herbert, who, by his influential position, has since contributed so much to their establishment; to the country, as represented in Parliament, for the support it accorded to them; to his Royal Highness the Commander-in-chief, and to the general and other commanders for their testimony in favour of the medical officers as a body; and to our Most Gracious Sovereign, who was pleased to order that the recommendations should take practical effect. These debts must be discharged; and I am confident I speak truthfully in saying that the surest way of doing so will be by each, in his particular sphere, contributing to solve the great problem of lessening the rates of sickness and mortality in Her Majesty's forces; for by such means we shall best repay the country for its increased outlay in the medical establishment, and justify and gratify the feelings of those who have laboured in the cause of our improvement. That this problem may be solved, if our endeavours are earnest, there cannot be the least doubt; indeed, we shall be disgracing our profession if, with the improved applications of sanitary science, and with increased study of army diseases and injuries, this end be not accomplished. The health-rate in the army, not counting injuries from war, ought to be more favourable than that of the civil population in England, and of the European civil population in the colonies. The careful way in which the soldier is selected, so that when entering

the army, if the recruiting duties are properly discharged, he ought to be free from bodily infirmity; his selection at an age when the frame is in a great measure set and decided; the expenses in his clothing, diet, and habitation, if well applied; the very nature of his exercises and duties, if judiciously disposed; these and other circumstances are all in his favour, as compared with those of the mass of the civil population, among whom, it is not to be forgotten, have been left those sick and weakly men unfit for military service, and into which the invalids disabled by military service, are continuously being poured. Instead, then, of the surplus of disease in the military as compared with the civil population, which was demonstrated with such painful clearness in the report of the Royal Commissioners, let us hope that before long these ratios will be reversed; and this will happen, as sure as cause is followed by effect in any other operations in which vital statistics are concerned, if the spirit of the new sanitary and medical system in the army be faithfully interpreted and acted upon. At any rate, let us all determine honestly to join in making the attempt. Recollect there is every inducement in the medical service for each officer to make personal zealous exertion: The successful issue of the professional pursuits in which he is engaged can depend only very partially upon the directions of his professional superiors, while the converse must usually happen in the military service. The power derived from combination and system is an especial quality of success in the combatant ranks; the value of the Medical Department depends, in a very great degree, upon the worth and intelligence of its individual members.

Mr. Sidney Herbert said that he wished to make a few remarks to those present on this occasion, although really what he had to say would be almost a plagiary from the able lecture which had just been delivered. He had been anticipated in many things he would have said by Professor Longmore. He had always taken a warm interest in all that concerned the health of the army; and, as President of the Royal Commission which had inquired into the sanitary state of the army, he must say that, as their inquiries extended, they found much that required remedy. The Commissioners had devoted much time to this inquiry, and had taken great pains in trying to devise plans for remedying the defects which were brought so prominently before them.

The Military Medical School which had now been instituted, resulted from this Commission; and while he was thus responsible for its origin, accidental circumstances had now made him officially responsible for its organization. The objects contemplated by the Government in establishing this school, were not only to give an acquaintance with the specialities of military medical life, but especially to teach the most approved methods of preventing disease. In this respect it was anticipated that this school ought to produce great benefit. There was no opportunity of learning elsewhere much that would be taught in it. The treatment of tropical diseases, and of diseases peculiar to soldiers, cannot be acquired in the civil schools. The position of the army medical officer, too, differed from that of his brother in civil life, especially in this, that the attention of the latter was, for the most part, taken up in curing disease, while he had very little opportunity of preventing it. Indeed, it seems almost against his interests to prevent disease. It was only the sick person who sent for the doctor, not the man that was well; and with the exception of the naval and military medical officers, it might, perhaps, be said that there were no medical men who could gain a livelihood, not by curing, but by preventing sickness.

He would especially say a few words to those who had just arrived to study at this school. He was aware their position was a novel one, and he knew that they were exposed to many sources of temptation to vice; but he hoped, that as medical officers, they would do their utmost to support the dignity of their profession. They must remember that they entered the service older in years than the young combatant officers with whom they would often associate,—whereas the combatant officers often entered the service as boys fresh from school. Besides this, the medical officer entered after having had the benefit of a scientific education, which, for the most part, the combatant officer had not had the advantage of having. He did not wish to put youth forward as a plea or justification for vice; but youth affecting manhood finds it easier to ape the vices of men than to emulate their virtues. Medical officers ought not merely to avoid such errors, but ought by their example and conduct to divert the tendency of their younger companions into a more useful sphere of action.

The relationship between the military and the medical element of the army had also of late years greatly changed. Commanding officers now felt the importance of having

medical officers who could preserve the health of the men under their command.

He knew of a case where a medical officer went to the military officer in command and told him that unless such and such things were done, there would soon be a dreadful sickness among the men. The reply was: "When your advice is wanted, it will be asked for." Accordingly, nothing was done, but when the men were down with sickness, as had been predicted, then the doctor was sent for, but it was too late. Now it is very different. He had just been reading a letter from the Adjutant-General with the army in China. It conveyed the most gratifying accounts of the present excellent condition, as to health, of the China force, and it showed how much benefit had arisen from the appointment of a Sanitary Inspector. This was the first time such an appointment had been made. It was one of the new regulations, and was the result of the recommendation of the Royal Commission.

Dr. Rutherford, the sanitary officer, was visiting portions of the camp every day, to see that everything was as it should be. But this was not the only good result. He was assured that not only had his appointment of a medical officer charged especially with the sanitary supervision of the army had the best effect directly, but that it had also indirectly acted in a remarkable way, by rousing, not only the regimental medical officers, but the combatant officers to pay increased attention to hygiènic measures. He believed that no men now were more anxious to enforce and carry out sanitary measures for those under their command than the military officers. It had been anticipated that such would be the result.

Great advantages were now enjoyed by medical officers over their predecessors. Their position, especially in the earlier part of their career, had been greatly improved by the new warrant. Their rank, pay, and influence, had all been augmented. The country would now naturally look for some return for these advantages, and he trusted the gentlemen now present would endeavour, on their part, to profit to the greatest extent by the advantages the Government have afforded them in the establishment of this school. If they showed, by their increased intelligence and zeal, that they were worthy of these advantages, the country would not grudge the cost, but they would be expected to prove their superiority to justify the outlay, and he felt certain that they would do so. He concluded by

wishing them every success and happiness in their new career.

General Eyre said that he most cordially concurred in the remarks made by Mr. Sidney Herbert. He must candidly say, from what he had heard, that the young medical officers at Chatham had gained anything but a good reputation for themselves; so that some of his predecessors had had occasion to find great fault with them. This, however, had not been the case during the time he had been in command—now two years—and he must acknowledge that he had scarcely ever received any complaint against them. He would also specially mention that the conduct of the young men who had been recently sent down to do duty at Fort Pitt (and who were amongst the number of those he saw before him) had been most exemplary. Indeed, nothing could be more satisfactory than the conduct of the young medical officers who had been at Chatham of late, and he hoped this would continue.

The Director-General of the Army Medical Department said, that, as the head of the department to which the candidates belonged, he, too, would say a few words on this important occasion. He hoped especially that they would profit from the remarks of the Right Honourable the Secretary for War, to whom the institution of this school was mainly owing. He trusted, also, that they would continue to give satisfaction to the General who commanded them, and to the Principal Medical Officer of the station. He observed that, after the gentlemen had completed their period of probation here, they would have to undergo examinations on the topics they had been specially studying. No one would receive a commission who did not acquit himself creditably, or who did not give satisfactory evidence of being qualified for the practical duties of an army medical officer. On the other hand, those who did pay the most attention to the subjects taught, and who were found at the examinations to have profited most by their studies, to them he intended to give the first and the best appointments. They should be sent to the most popular stations or to the regiments which were considered the best, as far as the exigencies of the service would allow.

The meeting then separated.

XIV.

Relations of the Medical Department and its Officers to other Departments of the Army.—Organization of the Medical Department.

knowledge the nature Military edical rvice neces- y.

Gentlemen,—It is part of my duty to make you acquainted with the general regulations of the medico-military service, as well as the relations of the Army Medical Department, and its officers, to the other departments of the army with which they are connected; and, indeed, it seems to me to be a necessary preliminary step to the course of study which you have come here to undertake, that you should obtain a correct appreciation of the nature and extent of those obligations and duties, as military surgeons, which this study is intended to prepare you for. No person, in the ordinary transactions of life, enters into an engagement which he binds himself down to fulfil under certain penalties, without making himself conversant, to the full extent of his ability, with the obligations he undertakes and the responsibility he incurs. But, in the medical part of the military service, there can be no doubt that, to a very great extent, this has not been done hitherto. No study was made, not even a perusal of the obligations undertaken, nor of the regulations to which he, the surgeon, by his initiatory declaration, bound himself. A contract was made, to which one of the contracting parties signed his assent, with only the most general notion of its provisions, while the other held in possession all its terms described with legal accuracy in every detail.

dvantages of acquaint- ce with the ules of the rvice and rganization Medical epartment.

Every one acquainted with the service must have observed that much disappointment and misapprehension, on the part of surgeons, and trouble both to military and medical authorities, have resulted from the superficial acquaintance of the nature of the military medical service obtained by surgeons at starting on their career. A brief survey of the duties of medical officers, and the nature of the Medical Department as at present organized, may be the means of preventing future disappointment of this kind; and the time spent in making the survey will therefore not be spent unprofitably. A knowledge of the particular duties which you will be called upon to perform hereafter will also enable you to determine in your own minds to what portions of the practical studies now in progress you each require to pay

more especial attention, and will stimulate you to the acquisition of increased knowledge and experience in all. In the latest editions of the Queen's Regulations for the Army, the Army Medical Regulations, and in the Warrant regulating the Rank, Pay, Promotion, and Retirement of Army Medical Officers; in the Mutiny Act, and Articles of War; you will find in detail the several matters, to the chief features of which I shall now proceed to refer as fully as our time will admit.

Medical Officer's Commission

The engagement of an army surgeon is a contract of service with the State at large, the appointment emanating from the highest authority in the realm, the Sovereign of the country. The commission which a medical officer receives not only requires the careful and diligent discharge of his professional duties, but also the observance of all such orders and directions as may from time to time be issued by Her Majesty, or any of her superior officers, according to the rules and discipline of war; and one of the first clauses in the Mutiny Act, which is passed annually by Parliament, defines that all persons who are commissioned, or in pay, as officers, are subject to all the provisions of that Act, and to all the rules and articles for the government of Her Majesty's forces, enacted by the Queen, and published by Her Majesty's command.

Liabilities Military Medical Officers.

Although unconnected directly with your professional pursuits as surgeons, as army surgeons you will find much that it is important for you to know concerning military law and economy, in the Act of Parliament known as the Mutiny Act, and in what are commonly called the "Articles of War," and I would recommend you at your leisure to peruse them. They are usually found in the hands only of combatant officers, but a large proportion of the regulations embodied in them apply to yourselves equally with all other branches of the service. The Articles of War comprehend the duties and obligations which result from the commissions conferred by her Majesty, the nature of what are commonly known as "Military crimes," in contradistinction to crimes against morals, or the general law of the land, and their punishments. These are classed under offences in the field, camp, garrison, or quarters; and include absence without leave, insubordination, drunkenness while on duty, or other disgraceful conduct, and such miscellaneous offences, as striking or otherwise ill-treating a soldier, permitting or engaging in duels, and all conduct included under the general charge of "tending to the prejudice of military order and discipline." Here you will also find the composition and

extent of power of courts-martial, as well as the mode of proceeding to be adopted in military medical boards convened for the inspection of officers who have received wounds in action, and who may be supposed to be entitled to pensions for the injuries they have suffered. You will also find in these Articles the legal enactments which regulate the engagement, position, and course of life of the soldiers with whom you are to live, and whom you will have professionally to protect from mishap, and to treat when sick, and in whose history you must therefore naturally feel an interest. The manner of the soldier's enlistment, his privileges, his crimes, and their punishments, the nature of military imprisonment, the system of billeting, circumstances connected with the discharge of soldiers, and indeed nearly all the most important laws affecting both the general and special relations of the soldier to the State and constituted authorities of the country and civil part of the population, are to be found in these pages.

Relations of the Medical to other Departments of the Army.

The rules by which the interior management and economy of all the departments of the army have to be conducted are concisely and clearly laid down in the book known as the "Queen's Regulations and Orders for the Army." An acquaintance with these orders is not left to your option; by command of His Royal Highness the General Commanding-in-chief, "Every officer in Her Majesty's service is to provide himself with a copy of the Regulations and Orders, and to make himself perfectly acquainted with them," and commanding officers are made responsible that this command is duly observed. Whereas, in the "Mutiny Act" and "Articles of War," the external relations of the army, and of the officers and men comprising it, are chiefly defined: in the Queen's Regulations, the internal relations of the several parts of the army to each other, and the mode in which its business is to be conducted, are principally described and dwelt upon. It is obvious that an acquaintance with these rules is not merely desirable, but absolutely necessary, for properly conducting the ordinary business of military affairs. I will indicate some of the leading subjects connected with yourselves and your future duties, which you will require to refer to the Queen's Regulations for authorized information upon. The relations of the Medical Department to other departments of the army are there laid down, and your own position in respect to rank, choice of quarters, and other matters, as compared with the combatant officers, whether of the army or navy, are there defined. The rules and forms under which leave of absence is to be applied for by medical

officers, whether on private affairs or on account of ill health, are contained in this book; the circumstances under which leave may be granted, and what steps are to be taken in case of an officer being absent without leave. The orders regulating the interior economy of regiments are detailed in the Queen's Regulations; and as, to quote the words of one of these Orders, "All officers are at all times, and under all circumstances, accountable for the maintenance of good order, and the rules of discipline in the service," to obey this it is essential that you should take the earliest opportunity of learning what these rules are. The management of hospitals, including the supervision required from commanding officers of all grades; the punishment for gaming, disorderly behaviour, or misconduct of any kind on the part of the patients; the arrangements for the military protection of the sick; the duties of medical officers with respect to preserving order, regularity, and cleanliness in the wards, and paying proper attention to the patients; the disposal of convalescents; the rules by which medical officers are to be guided in supplying diet, medicines, wines, and other allowances to sick soldiers of other military corps not under their immediate charge, as well as to sailors of the Royal Navy, and persons belonging to the civil branches of the war and naval service; the superintendence of men of the Army Hospital Corps, and the manner in which the military discipline of the corps is to be maintained, are defined in this book. Other duties of medical officers, and the rules for the professional management of general and regimental hospitals, and the preservation of the health of the army, are contained elsewhere, in the "Code of Medical Regulations."

Economy of Hospitals, and special duties of Army Medical Officers defined in the Queen's Regulations.

A very important duty of medical officers is the medical charge of troops proceeding by sea from one to another station, and it is to the Queen's Regulations you must refer for information respecting the manner in which the ship in which the troops are to embark is to be fitted and provided for their reception: the rules for the examination of the troops themselves: the diseases which are to render men objectionable for foreign service, and ineligible for embarking: the description and specification of the rations of provisions for troops on board ship: the kinds and amount of medical comforts to be placed on board for the sick: the Admiralty regulations for their accommodation: the duties of all ranks on board: and the regulations defining the means by which cleanliness, ventilation, exercise, and general sanitary arrangements are to be maintained so as to insure the pre-

servation of the health of the men in warm climates, as well as during protracted voyages.

These are some of the rules which you will require to study for your guidance in certain of your special duties as military medical officers, and I will now briefly call your attention to the regulations for your *general* professional conduct and business in the service. These are chiefly contained in the "Code of Medical Regulations," to which I have before casually adverted.

It will be convenient to consider, firstly, the objects which it is intended should be attained by the employment of medical officers in the army; secondly, to survey the organization of the Medical Department by means of which the attainment of these objects shall be facilitated and insured.

Professional duties of Army Medical Officers.

Firstly, the objects to be attained. These are threefold: viz., the prevention of disease, and the preservation of the health of troops: the cure of disease and injuries, when they have occurred, by proper medical and surgical treatment; and the scientific tabulation of the medical statistics of the army.

In the enumeration of the three principal branches of professional duty of the army medical officers, I have placed the prevention of disease and the preservation of the health of troops first, because it is undoubtedly first in importance as regards economy in the expenses of the country, comfort of the individuals, and efficiency of the forces at large. "The medical care of sick soldiers," it has been observed,* "is one of the most important concerns of an army. It claims a place of high consideration among the means provided in war; for, independently of the kindnesses of humanity, and of the gratitude due to those who risk health and life in defence of their country, there is economy, or greater saving of public money, in providing even an expensive medical treatment for sick soldiers, than in supplying the deficiencies which arise from diseases contracted in service, by a fresh levy of recruits on the mass of the people, or at a foreign market." This will doubtless be demonstrated to you by the Professor of Hygiène by examples of the fatal consequences of neglect of the sanitary function in armies, and, on the other hand, of benefits which have resulted from its judicious exercise.

Sanitary duties.

The exercise of this duty is not to be confined to especially-appointed sanitary officers, although, under certain circumstances in armies, officers of health are now ordered to be

* Dr. Robert Jackson.

appointed, who will have to devote their whole time and attention to sanitary arrangements; but army medical officers of all grades, each in his respective sphere, are ordered to be sanitary officers in future. As assistant-surgeons, you may find yourselves in medical charge of detachments in barracks, on the line of march, and in transports; as surgeons, in medical charge of battalions, or at the head of hospitals; as principal medical officers, at the head of bodies of troops collected together in camps, districts, or garrisons; and in all these situations it will be your duty to lay before the officer commanding the force, for his consideration, whatever may appear to you to be injuring the health of the troops, or whatever may appear to be necessary to insure its preservation. The Order directing medical officers to discharge this duty is the following:— "The Medical Department of the Army and its officers are not only intrusted with the medical care of the sick, but with the duty of recommending to commanding officers verbally, or in writing, whatever precautionary measures as to barracks, encampments, garrisons, stations, hospitals, transports, diet, dress, drills, and duties, may, in the opinion of the department and its officers, conduce to the preservation of the health of the troops, and to the mitigation or prevention of disease in the army, whether at home or abroad. But in the event of any verbal representation not being complied with, the medical officer shall make a representation in writing on the subject to his commanding officer."* Of course, the commanding officer, who is supreme, may adopt, or not adopt, as he thinks proper, the recommendation of his sanitary adviser; and it will frequently happen that pecuniary, or, in time of war, strategic considerations, will have to be weighed against hygiènic considerations, and what may appear the most important to the medical officer will have to be overruled by necessities of which the commanding officer is the most competent judge. But now that the principles of sanitary science are to be taught as a special branch of study, and that the application of these principles to all the circumstances of military life are to be illustrated in the practical courses of hygiène at this school, it is reasonable to infer, not only that by these means the knowledge of medical officers of the army generally will be greatly advanced on these subjects, but also that the recommendations which may be given by them in accordance with this extended experience, will acquire proportionably increased

* Medical Regulations, chap. xx, art. 1.

influence with those in whom the executive authority is vested. The increased responsibility thus thrown upon you, doubly increased by the regard which henceforward sanitary suggestions may be expected to receive, should make you study the subject very carefully, should put you on your guard against prejudice, against imperfect and hasty conclusions, and should excite you to display increased prudence and circumspection in your conduct. You must each recollect that advice offered, if unsound, inappropriate to the occasion, and on such account warrantably rejected by the executive authorities, will not merely be productive of temporary discredit to yourself, but will lessen the weight of your future influence, and must, to a certain extent, depreciate the character of the department whose honour and credit it will your duty, as one of its members, to sustain, and, as far as lies in your power, to extend.

Personal Hygiéne of Troops, &c.

The rules of the service *specify* certain hygiènic duties which medical officers are ordered to perform, and these have been classified under four heads: "Personal Hygiène of Troops," "Hygiènic Duties in Barrack, Quarters, and Hospitals," in "Garrisons and Camps," and fourthly, in the "Field and in Transport-ships." Under "Personal Hygiène" are embraced the orders for the examination of recruits before final approval in regiments, the weekly inspections for detection of certain diseases and for personal cleanliness, the practice of vaccination, periodical examinations of the rations and drinking water supplied to the troops, the cooking, and the games and gymnastic exercises, so far as they bear on the health of the men. Under duties in barracks, &c., are comprehended the directions to medical officers for ascertaining, by frequent visits to barrack-rooms, quarters, guard-rooms, hospitals, cells, and married soldiers' quarters, that their cleanliness is attended to; that the number of men in the rooms and guard-rooms accords with the regulated cubical space; that the means of ventilation and light in all the rooms and outbuildings, as well those frequented by soldiers, such as schools, reading-rooms, &c., as those inhabited by them, are sufficient and in effective operation; that the airing of their bedding is attended to; and, in short, that their general sanitary condition is maintained.

Sanitary duties in Camps, Transports, &c.

Under sanitary duties in camps and stations, the senior medical officer, in the absence of a special sanitary officer, is ordered to exercise a general sanitary supervision over all parts occupied by the troops, and their vicinity, and to represent and recommend to the officer commanding what-

ever he may consider necessary for promoting health, whether as regards the abatement or removal of local causes of sickness, or alteration of diet, clothing, &c., and any measures of precaution which appear requisite for preventing epidemic disease, or mitigating it, if such disease appears. Copies of all such recommendations are invariably to be sent to the Director-General. Under sanitary regulations for field service, directions are issued corresponding with those for the sanitary supervision of garrisons and camps;—in addition, the medical sanitary officer is ordered to assist by his advice, so far as concerns the health of the troops, in the selection of the sites for encamping; in the position and regulation of latrines and slaughtering places; the burial of the dead; the amount of occupation of tents or huts, and their arrangement; the surface drainage; the preservation of the water supply in a state of purity, and other such arrangements. He is also ordered to make recommendations for organising a proper sanitary police for the removal of nuisances, and the execution of those sanitary measures which he may consider necessary for promoting the health of the force. Under the class of duties in transport ships are included directions for the preliminary inspection of the ships as to their tonnage, accommodation, and means of ventilation, relative to the number of troops or sick to be embarked; the means of removing offensive bilge-water as it accumulates, and the general cleanliness and sanitary condition of the ship; and further, that the supply of drinking water, provisions, medical comforts, bedding, cots, medicines and instruments, &c., is sufficient for the voyage, and good. The medical officer who goes in charge of the troops and sick is ordered to keep a constant watch over the sanitary arrangements on board, according to the instructions in the chapter of the Queen's Regulations relative to the "Duties on board ship," before adverted to.

I have thus given you an outline of the sanitary duties which will devolve on you, as medical officers of the army, by orders of the Commander-in-chief, according to the regulations recommended by the Secretary of State for War, and graciously approved by her Majesty. The *scientific execution* of these duties will be taught you elsewhere.

Medical and Surgical duties.

The next sphere of duty in which medical officers are habitually employed is the professional treatment of the diseases and injuries incidental to the military service. This province of medical duty at once divides itself into two parts: the educational, and the part comprehending the means

placed at the disposal of medical officers for applying their knowledge to the interest of their patients.

It is the object of Government to obtain, for the benefit of the army, medical officers as highly trained and educated as possible, to fit them for the most efficient discharge of their numerous professional and scientific functions. The means adopted for selecting from the candidates for admission to the service those among them most thoroughly qualified you are already acquainted with, having passed through that ordeal successfully.

Regulations for Education of Army Medical Candidates.

The organization of this school, including the subjects to be taught, the arrangement for the course of study, the examination which is to follow at the conclusion, has been already remarked upon, and you are in possession of its regulations in detail in the printed pamphlet on the subject issued by the War Office during the present year. One other point bearing on the subject of education, is the examination which assistant-surgeons now have to undergo prior to promotion; its object being to ascertain that each officer has kept pace with the progress of medical science during the earlier part of his career in the army. The rules for this examination are appended to the Warrant regulating the rank, pay, promotion, and retirement of army medical officers, which is included in the book of Medical Regulations.

Regulations of present Hospital system.

But equally necessary with good education and sound knowledge, are efficient means for their proper application,—in other words, a well organized and efficient hospital system. Great changes have of late been made in the organization and equipment of military hospitals, and an allusion to the system, as it now exists, will be useful for our present purpose. The authorized hospitals are of two kinds,—regimental and general; the former established for the reception and reatment of the sick and hurt of the regiment to which it belongs, and moving with it; the latter, for the sick of all corps indiscriminately of her Majesty's service, and generally having a more or less permanent character. Regimental hospitals are under the immediate supervision of the officers commanding the regiments, and the officers commanding the brigade or stations under whose command the regiment is placed; they are also under the direction of their respective regimental surgeons, subject to the general instructions and superintendence of the Director-General of the Army Medical Department, and the officer representing him and acting under his orders. A general hospital is

under the supervision and control of a governor or commandant, who is held responsible for the discipline and good order of the whole establishment, and whose decisions on all questions submitted to him, are final, subject only to appeal to the Secretary of State for War; but, in case the governor is absent, the powers and duties of commandant are exercised by the principal medical officer.

Varieties of Hospitals.

The principal medical officer, acting under the directions of the Director-General, has the control of everything belonging to the medical department of the hospital. Special provision is made for field hospitals, their equipment, and means of transport; but these will have to be considered at more length hereafter, when speaking of the medical arrangements of armies in the field. The proportions of field equipment, and means of transport, relating to the strength of each division of the army, are now laid down in the Medical Regulations.

Statistical duties.

The statistical duties of army medical officers, like the hygienic, are now ordered to be systematically observed by all medical officers, and instructions for performing them in all the several branches to which they refer are laid down in the new Medical Code. In time of peace the statistics of the army are shown in *weekly* periodical returns, which have to be prepared and forwarded by all medical officers in charge of soldiers, as well of those in health as those in sickness. They are so arranged as to enable the Director-General, and, through him, the Commander-in-chief and the "Government, to judge of the comparative healthiness of every station and every barrack, to trace the sickness and mortality to their various causes, to ascertain the comparative influence of each, and to take the precautions and apply the remedies which the case may require." In time of war, when an army is in the field, the statistics are shown in *daily* returns, of the same form as the weekly returns in time of peace, so that the principal medical officer, and, through him, the Commander of the Forces, may know, again to use the words in the report of the Royal Commissioners, "The past and existing rate of sickness and mortality in the army, what are the causes of it, and for what time at a continuance of the same rate, and with what reinforcements, he can maintain his army in the field." They also enable the home authorities to compare the health-rates of the army with those of civil life, and with its own rates at previous periods. Other statistical returns furnish registered information respecting all men examined as recruits, whether accepted or rejected, such as their physical

characteristics, place of birth, occupation, state of education, and cause of rejection if found unfit,—their diseases, or defects, being systematically classified. Others again supply information on the diseases, wounds, or infirmities for which men are invalided from the service, showing their characters, ages, station whence invalided, and ultimate disposal of each man. Every recruit now, on entering the service, has apportioned to him what is called a "Medical History Sheet," in which are briefly recorded from time to time all circumstances bearing on the medical history of the man, continuously throughout his military service, up to the date of his death or discharge. After either of these events, this document is transmitted, through the proper channel, to be placed among the records in the office of the Director-General of the Army Medical Department. A vast amount of important information respecting the health of the army it is expected will be made available by reference to these documents. Other minor sources of statistical information you will find in the Medical Regulations; both the forms of the returns themselves and the instructions in the proper method of filling them up and supplying the information required. The nosological terms used in preparing statistical tables in the army, are in accordance with the nomenclature determined upon by the members of the European Statistical Congress which was convened by the Government of the Emperor of the French, and first met in Paris on the 10th of September, 1855, and are the same as those which are employed in the returns of the diseases of the civil population. Up to a recent period the nomenclature was that of Cullen's *Nosology*, which dated from the year 1780, and had become too antiquated to be applied to any practically useful purpose.

Organization of the Army Medical Department.

Within a recent period the *constitution* of the medical department of the army itself has been remodelled, and it is as well that you should have an insight into the present plan of its organization. The department, then, is subdivided, and consists of,—1st, the medical officers of the army, to whom the medical and sanitary duties, management of hospitals, and statistics of the army are committed; of officers, whose duties consist in providing the necessary hospital stores, equipments, and dietary, in keeping the returns of supply and account, in issuing clothing and providing for the washing of the linen of the patients, in getting all repairs urgently required in the hospital executed, —these officers bearing the name of purveyors; of other officers responsible for the care of the medicines, medical

stores, and surgical appliances, under the name of apothecaries; of dispensers and compounders for preparing prescriptions, these two sets of officers being combined in one division, the dispensing department; of the Army Hospital Corps, from whose ranks come the masters of wards, orderlies, cooks, and others, and to whom are directly entrusted the personal attendance upon the sick, day and night; the cleanliness of the hospital; charge of the kit, clothing, and all other property of every patient in hospital; and the cooking and apportioning of diets according to the diet rolls. The regulations also provide for an establishment of female nurses, to be employed solely in general hospitals. These are the various divisions or sub-departments, which, combined, constitute what is termed as a whole the Army Medical Department. Each of these distinctly-functioned divisions have their particular code of regulations, so ordered, that the mode of working of each shall be in accord with, or subservient to the plan of business in the rest, and that the whole may move together in harmony; in the same way that the Medical Department itself, as a whole, is intended to move and work in harmony with the arrangements of all the other principal departments of the army. If from want of knowledge of the nature of these mutual relations, an attempt is made to transact affairs in a manner otherwise than that which is authorized, much time is lost in the necessary rectification of the error in various offices, and business is impeded. It is, therefore, necessary that officers should have a general understanding of the connexions of their own department, with the others with which it is in relation, to avoid the mistakes just indicated.

Organizatio of Medical Division of Army Medi Department

The purely professional division of the Army Medical Department consists of two sets of officers, the administrative and the executive. The executive has two grades, viz., assistant-surgeons, staff or regimental; and surgeons, whether staff surgeons, regimental surgeons, or surgeons-major. The inspecting ranks are also of two grades, deputy inspectors and inspectors, acting under the Director-General, who is the sole responsible administrative head of the department.

Executive Officers.

The duties of the executive officers consist in taking medical charge of the troops, whether in corps or regiments, general or other hospitals, in prisons or on board ship, and in attending the general, commissariat, or other staff. They are employed in recruiting districts, in performing all the required sanitary duties, in making medical inspections of prisoners, in attending punishment parades, ball practice,

field-days, &c. They are required to make up the professional returns, and to maintain the systematic registration of cases according to the regulated plan for performing this duty. Specific instructions as to the method of dividing these duties among the respective grades of assistant and full surgeons when associated, and again between those employed on the staff and those in regiments, are laid down in the Medical Regulations; but each, whether staff or regimental, or whatever the grade, is required to discharge any executive duty should the absence of associates render this necessary.

Administrative Officers.

The duties of the administrative officers consist in making visits of inspection over districts at such times as the Director-General may appoint; to see that the sanitary and medical regulations of the service are duly observed; and that the medical, sanitary, and statistical records are properly kept; to advise with medical officers on matters connected with the mitigation or prevention of disease; to see that the state of the hospitals, the supplies, and all the arrangements for the care and treatment of the sick soldier in all respects are good and efficient; and the inspecting officers are required to report in detail to the Director-General all defects he may observe, recommendations he has made, and any suggestion for further improvement that may occur to him. As principal medical officers of districts, or of foreign stations, the administrative officers of the department are required to transmit to the Director-General regular statistical returns of disease and mortality, compiled from the returns received by him from the medical officers under his immediate direction, as well as general sanitary reports of the district or station under his charge. The Principal Medical Officers are also the authorized channel of all communications between medical officers and the head of the department, as well as for the transmission of the regular returns and reports. The Medical Regulations afford detailed information respecting the mode in which the history of diseases and their treatment are to be recorded, the number and form of the several periodical statistical and sanitary returns and reports required, and the times of their transmission. All these reports, returns, and correspondence, according to their nature, are arranged to pass through the Principal Medical Officer, in such a manner as ultimately to arrive at one or other of the heads of three distinct branches, medical, sanitary, and statistical, into which the office of the Director-General in London is divided, by whom, after having been properly examined or

considered, as the case may be, the documents are finally submitted to the Director-General, if reference is required, or disposed of in its proper place, if belonging only to the routine business of the department or public service.

Purveying Division of the Army Medical Department.

The officers of the Purveying Department attached to general hospitals are engaged in providing hospital supplies and equipments under the governors or commandants, from whom they receive their instructions. In hospitals where there are no governors, purveyors act on the requisitions of the medical officer in charge, subject, in cases of apparent extravagance, to a report by the purveyor to the Purveyor-in-chief, who, if he thinks necessary, brings the case under the cognizance of the Secretary of State for War for his decision, after hearing the opinion of the Director-General. Purveyors also act in the same relation towards hospitals as barrack-masters act in the instance of barracks and other public buildings. The mode of conducting business in this department is regulated by the Purveyor-in-chief.

Dispensing Department.

The officers of the Apothecary's Department act under the immediate instructions of the Principal Medical Officer, who represents the Director-General. The dispensers act under apothecaries who are responsible for the efficient performance of the dispenser's duties.

Army Hospital Corps.

The men of the Army Hospital Corps are subject, in regard to discipline, to the orders of the officer commanding the station, but are under the superintendence and control of the Principal Medical Officer in respect to the discharge of their hospital duties.

I have thus given you an insight into the constitution, objects, and conduct of business of the departmental sphere of action within which you have just entered; it has been, of course, but a very general survey, but it will not be without use if it leads you to seek for fuller information in the several authorized works to which I have referred you.

You have seen that army medical officers have a great variety of important duties to perform. You have seen them as medical officers performing their professional duties under the direction of the head of the Medical Department of the Army,—as military officers under the constituted executive authorities of the army. Under no circumstances are medical officers intrusted with military command, nor are they in a position to exercise it if they were, any more than purely military officers are in a position to exercise the functions of medical officers without the requisite education. Certain officers are specially appointed and trained for the duties of command, and we shall not elevate our footing one

Medical Officers have no executive command.

jot by omitting due respect to the authority placed over us; but, on the contrary, by so doing we shall adopt one of the surest methods of weakening that influence we may otherwise possess. It is essentially necessary in military affairs, whether on a large scale, or in smallest divisions, that one only should command,—that there should be, as in a watch, but one regulator; and obviously, it is an infinitely less evil that the machine should go too slow or too fast, than would be the confusion which must result from independent action in its several parts. The whole strength of military organization consists in unity and supremity of command, combined with a system of gradually delegated authority, and proportionate responsibility. I dwell upon this the more because I imagine it to be one of the dangers ahead which may damage medical officers in the army, and lead to curtailment of that increased weight which has been lately added to their professional position,—a position which, rightly employed, must prove of incalculable benefit to the service at large. It is right that this matter should be reflected upon, and understood at the commencement of your career. I have witnessed many instances in the course of my service, where comfort and prospects have been blighted, and the opportunity of much usefulness thwarted, by medical officers assuming functions which were not their own. On the other hand, I could mention others, where, by care not to infringe established rules, and by the exercise of a little judicious forbearance, medical officers, out of temporary trouble and displeasure, have arrived at increased esteem and credit among those of their superiors whose regard was of most value.

Never be so unwise then as to seek distinction by assuming the purely military office which does not belong to us. You may hereafter have many demands upon you for exhibition of courage, but under circumstances of a different kind from those of the combatant officer. His daring will be shown in risking everything, even to his life, whatever be the object of the orders under which he acts. If at any time you are called upon to display courage at the risk of life, there can only be one legitimate object for the act, the attempt to save the lives of others. Be proud of your profession, and of the distinctive marks and appointments by which it is denoted. It is one of the highest you can follow; second only to that which ministers to the eternal happiness of man, to whose temporal welfare and happiness it is your province to minister. You exercise it under the noblest circumstances,—in the service of your Queen and

country. The very risks you may encounter in common with those whose sufferings you may be called upon to alleviate are in themselves sources of honour; and the highest honours are now open to all ranks, and freely given when won. The daily duties, the emergencies which so frequently occur in medical life, have a peculiar tendency to develope and foster such qualities as coolness in danger, intelligent courage, promptitude of decision, and self-devotion in conduct. And to preserve self-possession by the aid of reflection in the hour of general excitement, and amid the noise of battle; to exhibit under danger qualities of mind such as calmness and decision in the application of your professional knowledge,—of such unspeakable importance to your patients,—will do you more credit, and bring you more praise from the judicious, than the most brilliant display of daring which wild excitement ever led to. When the distinguished French surgeon, Baron Percy, carried his wounded comrade on his back while the bridge over which he was hurrying was being broken up by the fire of the enemy's batteries, it was not the mere sight of his daring that provoked the spontaneous burst of applause among the French troops who witnessed his conduct, but an innate admiration of his self-possession while devoting himself to an act of humanity. Many equally humane and courageous deeds have been done by British surgeons in our own time, as the ranks of the Victoria Cross sufficiently testify, and such instances should not be lost to recollection, but should be treasured up as examples, should circumstances arise to make similar calls on our professional devotion.

Circulars, 1859.

Victoria R.

Whereas, We have taken into Our consideration the recommendations of the Commissioners appointed by Our authority to inquire into the Regulations affecting the sanitary condition of Our Military Forces and the Medical treatment of the sick and wounded of Our Army; Our Will and Pleasure is, that, from and after the date of this Warrant, the following rules shall be established for the future admission, promotion, and retirement, and the pay, half-pay, relative rank, and allowances of the Medical Officers of Our Arm, and that by these Rules Our Commander-in-chief shall govern himself in recommending Officers for admission, promotion, and retirement.

1. The grades of Medical Officers in Our Army shall be four in number, viz.:—

(1.) Inspector-General of Hospitals.

(2.) Deputy-Inspector-General of Hospitals.

(3.) Staff or Regimental Surgeon; who, after 20 years' Full-Pay service in any rank, shall be styled Surgeon-Major.

(4.) Staff or Regimental Assistant-Surgeon.

2. No Candidate shall be admitted to the competitive examination for a Commission in the Medical Department of Our Army who does not possess such a certificate or certificates as would qualify a civilian to practise Medicine and Surgery; and no such candidate shall receive a Commission as Assistant-Surgeon until he shall have satisfactorily passed an examination in Military Medicine, Surgery, and Hygiène, after attending the authorized course in a General Military Hospital.

3. No Assistant-Surgeon shall be eligible for promotion to the rank of Surgeon until he shall have passed such examination as Our Principal Secretary of State for War may require, and shall have served on Full-Pay with the Commission of Assistant-Surgeon for five years, of which two shall have been passed in or with a Regiment.

4. A Surgeon, whether on the Staff or attached to Regiments, must have served ten years in the Army, with a Commission on Full-Pay, of which two must have been passed, with the rank of Surgeon, in or with a Regiment, before he will be eligible for promotion to the rank of Deputy-Inspector-General of Hospitals.

5. A Deputy-Inspector-General of Hospitals must have served five years at home, or three abroad, in that rank, before he shall be eligible for promotion to the rank of Inspector-General.

In cases, however, of emergency, or when the good of the service renders such alteration desirable, it shall be competent for Our Secretary of State for War to shorten the several periods of service above mentioned, in such manner as he shall deem fit and expedient.

6. Assistant-Surgeons shall, as a general rule, be promoted to the rank of Surgeon in the order of their seniority in the service, unless unfit for the discharge of their duties from physical or professional incompetence or misconduct. In cases of distinguished service, however, an Assistant-Surgeon may be promoted without reference to seniority; and in such cases, with a view to insure the responsibility attaching to an appointment made out of the regular course of promotion, the recommendation in which the services of the Officer shall be detailed, shall be published in the General Orders of the Army and in the "Gazette" in which his promotion appears.

7. All promotion from the rank of Surgeon to that of Deputy-Inspector, and from the rank of Deputy-Inspector to that of Inspector, shall be given by selection for ability and merit; and the grounds of such selection shall be

stated to Us in writing, and recorded in the office of our Commander-in-chief, the selection being made from the whole rank of Surgeons, whether styled Surgeons or Surgeons-Major.

8. The rates of pay of the Medical Officers of Our Army shall be in accordance with the following Schedule :—

	After 30 years' Service on Full-Pay.	After 25 years' Service on Full-Pay.	After 20 years' Service on Full-Pay.	After 15 years' Service on Full-Pay.	After 10 years' Service on Full-Pay.	After 5 years' Service on Full-Pay.	Under 5 years' Service on Full-Pay.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Inspector-General	2 5 0	2 5 0	2 0 0*	..	..	..	..
Deputy Inspector-General ..	1 14 0	1 10 0	1 8 0*	..	..	..	..
Surgeon-Major ..	..	1 5 0	1 2 0	..	..	..	..
Surgeon ..	..	..	..	0 18 0	0 15 0*	..	..
Assistant-Surgeon	..	..	..	..	0 13 0	0 11 6	0 10 0

* Or on promotion, should these periods of service not be already completed.

9. In addition to the pay of their ranks, Officers at the head of the Medical Department on foreign stations shall receive allowances at the under-mentioned rates, when serving under the following circumstances, viz. :—

If with an Army in the field, of 10,000 men or upwards . . 20*s.* per day.
If with an Army in the field, of 5,000 men or upwards . . 15*s.* „
If with an Army in the field, of any less number . . . . 10*s.* „
If serving in a Colony where the forces consist of 1,500 men or upwards . . . . . 5*s.* „

10. After the date of this Warrant every Medical Officer placed on Half-Pay by reduction of establishment, or on the report of a Medical Board, in consequence of being incapacitated by reason of ill-health, caused by wounds, or brought on by the discharge of his duties, shall be allowed the Half-Pay to which his period of Full-Pay Service may entitle him, according to the following Schedule :—

	After 30 years' Service on Full-Pay.	After 25 years' Service on Full-Pay.	After 20 years' Service on Full-Pay.	After 15 years' Service on Full-Pay.	After 10 years' Service on Full-Pay.	After 5 years' Service on Full-Pay.	Under 5 years' Service on Full-Pay.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Inspector-General	1 17 6	1 13 6	1 10 0	..	..	..	..
Deputy Inspector-General ..	1 5 6	1 2 6	1 1 0	..	..	..	..
Surgeon-Major ..	..	0 18 6	0 16 6	..	..	..	..
Surgeon ..	..	..	..	0 13 6	0 11 0	..	..
Assistant-Surgeon	..	..	..	..	0 10 0	0 8 0	0 6 0

11. With a view to maintain the efficiency of the service, all Medical Officers of the rank of Surgeon-Major, Surgeon, or Assistant-Surgeon, shall be placed on the Retired List when they shall have attained the age of 55 years, and all Inspectors-General and Deputy Inspectors-General, when they shall have attained the age of 65 years.

Officers thus superannuated shall be entitled to the rates of Half-Pay stated in the preceding Schedule.

12. Every Medical Officer who shall have served upon Full-Pay for twenty-five years and upwards shall have the right to retire upon Half-Pay, at the rate of seven-tenths of the daily pay he was in receipt of when thus retiring, provided he shall have served three years in the rank from which he retires, or shall have served in any rank for ten years in the Colonies, or five years with an Army in the field. But if he shall not have complied with any one of these conditions, he shall be entitled only to Half-Pay, at the rate of seven-tenths of the daily pay he was in receipt of before his last promotion.

13. Every Medical Officer thus claiming to retire, must give six months notice to the Head of his Department of his intention to claim this right, prior to his being allowed to retire; and no Medical Officer shall have a right to give such notice after he shall be under orders to proceed to any foreign station, until he shall have served at such station for one month.

14. If a Medical Officer is placed on Half-Pay from any other cause than those hereinbefore named, he shall only be allowed a temporary rate of Half-Pay (not exceeding the rates stated in Clause 10), for such period and at such rate as shall be assigned to him by Our Secretary of State for War, on a consideration of the length and character of the services rendered to the public by such Medical Officer.

15. On reduction of Establishment, the Surgeon and Assistant-Surgeon who are junior in the ranks, shall be the first reduced, and, on restoration to Full-Pay, the reduced Officers who are senior in their rank shall be the first restored.

16. The relative rank of the Medical Officers of Our Army shall be as follows:—

Staff or Regimental Assistant-Surgeon as a Lieutenant, according to the date of his Commission; and, after six years' Full-Pay service, as Captain, according to the date of the completion of such service.

Staff or Regimental Surgeon as Major, according to the date of his Commission; and Surgeon-Major as Lieutenant-Colonel, but junior of that rank.

Deputy Inspector-General of Hospitals as Lieutenant-Colonel, according to the date of his Commission; and, after five years' Full-Pay service, as Deputy Inspector-General, as Colonel, according to the date of the completion of such service.

Inspector-General of Hospitals as Brigadier-General, according to the date of his Commission, if with an army in the field, or after three years' Full-Pay service as Inspector-General, as a Major-General, from the date of his joining such army in the field, or according to the date of the completion of such service.

17. Such relative rank shall carry with it all precedence and advantages attaching to the rank with which it corresponds, [except as regards the presidency of Courts-martial, where Our Will and Pleasure is, that the senior combatant Officer be always President], and shall regulate the choice of quarters, rates of lodging money, servants, forage, fuel, and light, or allowances in their stead, detention, and prize-money. But when a Medical Officer is serving with a Regiment or Detachment, the Officer commanding, though he be junior in rank to such Medical Officer, is entitled to a preference in the choice of quarters.

18. Medical Officers shall be entitled to all the allowances granted by Our Warrant of 13th July, 1857, on account of wounds and injuries received in action, as combatant Officers holding the same relative ranks.

19. Their families shall in like manner be entitled to all the allowances granted by Our Warrant of 15th June, 1855, to the families of combatant Officers holding the same relative ranks.

20. Medical Officers shall be entitled to field allowances, at home

and abroad, at the following rates, subject to all the conditions and restrictions laid down in Our Warrant of 1st July, 1848 :—

Daily Rate.

	Ordinary.	Extra-ordinary.
	s. *d.*	*s.* *d.*
REGIMENTAL.		
Assistant-Surgeon, under Six Years' Service	1 0	2 0
" " above Six Years' Service	1 6	2 6
Surgeon	2 6	4 6
Surgeon-Major	2 6	4 6
STAFF.		
Assistant-Surgeon, under Six Years' Service	1 6	2 6
" " above Six Years' Service	2 0	3 6
Surgeons	3 0	5 0
Surgeon-Major	3 0	5 0
Deputy Inspector-General, under Three Years' Service	4 6	7 6
" " " above Three Years' Service	6 0	10 0
Inspector-General of Hospitals	9 0	15 0

21. Surgeons or Surgeons-Major of Infantry Regiments shall not in future be subject to any diminution of the allowance of forage, according to the regulations in force, nor to any stoppage out of their daily pay for any ration of hay, straw, or oats, supplied for the horse or horses kept by them for the public service.

22. All Staff Surgeons of the first class and Senior Surgeons of Artillery now serving, or who, being now on Half-Pay, shall hereafter be called upon to serve, shall rank as Surgeons-Major from the date of their Commissions as Staff-Surgeons of the first class, or Senior Surgeons of Artillery, and shall receive the pay of Surgeon-Major, according to the foregoing schedule of Full-Pay from the date of this Warrant, or from the date of being called from Half-Pay to Full-Pay; and all Surgeons who have already completed twenty years' Full-Pay service, or upwards, in any rank, shall have the rank and pay of Surgeons-Major from the date of this Warrant.

23. Medical Officers shall be held entitled to the same honours as other Officers of Our Army of equal relative rank.*

24. A Medical Officer, retiring after a Full-Pay service of twenty-five years and upwards, may, if recommended for the same by the Head of his Department, receive a step of honorary rank, but without any consequent increase of Half-Pay.

25. Good Service Pensions shall be awarded to the most meritorious Medical Officers of Our Army under such regulations as shall be from time to time determined by Us, with the advice of Our Secretary of State for War.

26. Six of the most meritorious Medical Officers of the Army shall be named My Honorary Physicians, and six, My Honorary Surgeons.

Given at Our Court of St. James's, this first day of October, 1858, in the Twenty-second year of Our Reign.

By Her Majesty's Command,
(Signed) J. PEEL.

* This clause does not extend to the compliments to be paid by Garrison or Regimental Guards as laid down in pages 29 and 30 of the Queen's Regulations for the Army.

Sir, 5th January, 1859.

I have the honour to transmit the accompanying Circular from the War Office, dated 12th October, 1857, promulgating a new arrangement for carrying on the financial and executive duties of that department abroad; and in directing your attention thereto, I have to request that you will forward all representations you may have to make on subjects not strictly departmental, through the General Officer Commanding, as his opinion will greatly assist the Secretary of State for War in arriving at a just decision on such matters.

(Signed) T. Alexander, *Director-General.*

The Principal Medical Officer, &c.

Sir, 19th October, 1857.

The Secretary of State for War having determined that the Boards of respective Officers should be abolished, and that the cash business of the several branches of the War Department, at Foreign Stations, should be concentrated, it becomes necessary to make new provisions for carrying on the financial and executive duties of the War Department abroad. Moreover, his Lordship thinks it desirable that a more complete local supervision should be maintained over the several branches of the department at Foreign Stations than has heretofore been possible. With these views, he has instructed me to forward to you the inclosed documents for your information and guidance, and further, to direct that the following regulations be observed; viz:—

1st. You will henceforth consider yourself generally responsible to the Secretary of State for the due performance of the duties of all the Military Departments within your command, including those of the

Commanding Officer of Artillery,
Commanding Royal Engineer,
Military Storekeeper,
Barrack-Master,
Commissariat Officer,
Principal Medical Officer, and
Purveyor.

2nd. Nothing contained herein is to interfere with the usual course of correspondence between you and the Commander-in-chief of the Army, with reference to the military discipline and service of the corps of Royal Artillery, Royal Engineers, and the Medical and Purveyor's Staff; the object of this Circular being strictly limited to those administrative duties upon which the instructions proceed direct from the War Office.

3rd. As a general rule, the local heads of these branch departments will continue to receive from their respective chiefs in the War Office, instructions for their guidance in accordance with the orders of the Secretary of State, and you will call upon them at such times as may be most convenient to you, to submit those orders for your information; but whenever the importance of the question renders it desirable, the instructions will be sent to you by the Secretary of State to be communicated by you to the Officers in question.

4th. Whenever you shall deem it necessary to communicate with the Secretary of State for War on a service connected with any branch of the department, you will call upon the head of that branch for his opinion in writing, which you will forward, together with your own recommendation upon the subject, for his Lordship's information.

5th. All estimates for works, repairs, and establishments, are in the first instance to be submitted to you by the several branches concerned with them for your information and approval, before they are forwarded for the decision of the Secretary of State for War.

6th. You will from time to time, when practicable, inspect the various branch departments to such extent as will satisfy you that they are efficiently conducted; and you will transmit direct to the Secretary of State a report of your proceedings and observations, in time to reach this Office by the 1st November in each year.

7th. Annexed are certain special directions and heads of inquiry which relate to particular branches, and upon which information is desirable; but the Secretary of State will be glad to receive any observations on other points which you may think proper to notice.

8th. In the event of its being necessary to provide specially for carrying on the business in any branch department from the death or absence of any of its officers, or from any other cause, the head of the branch concerned will represent the same to you, and act upon your authority in the matter, pending the receipt of instructions from this Office. Should a branch department require at any time additional temporary assistance, you will, should you think fit, direct such assistance to be procured, and report the same to the Secretary of State. All proposals for increase of the pay of temporary clerks and other subordinates in the several branches, are to be submitted for such observations as you may have to make upon them, before they are sent Home for the decision of the Secretary of State.

9th. If there be any sub-stations in your command at which establishments belonging to the War Department are kept up, you will delegate such of the powers and duties herein referred to with respect to them as you cannot conveniently exercise yourself, to the officers commanding at such sub-stations respectively, and you will instruct them as you may think fit, with reference to their communicating with this Office directly, or through your own head-quarters.

10th. You are requested to give the necessary orders that the new system may come into operation from the commencement of the quarter succeeding the receipt of this Circular at your station, if sufficient interval occur for completing the arrangements, or otherwise, from the commencement of the subsequent quarter. You will be pleased to report the date determined on.

(Signed) J. R. Godley.

The General or other Officer Commanding
the Forces at, &c.

SPECIAL DIRECTIONS AND HEADS OF INQUIRY REFERRED TO IN THE ANNEXED CIRCULAR.

Artillery Branch.

Are the ordnance, carriages, and traversing platforms mounted on the several defences, kept in serviceable condition and working order, and with their proportions of side arms and small stores under proper military protection?

Are the proportions of made-up ammunition allotted for immediate service of the mounted ordnance sufficient, and are the expense magazines in proper condition, and under adequate military protection?

Are the service field guns, with their carriages, ammunition, and equipments, in efficient condition, and under suitable cover and protection?

Engineer Branch.

Is the establishment of clerks, artificers, and labourers sufficient, and not more than sufficient, for the performance of the duties?

Have the works and repairs been carried out in accordance with the plans and estimates approved by the Secretary of State for War for the financial year.

Have the barrack repairs been executed with promptitude?

Do correct plans exist of the fortifications, barracks, and other military buildings, and are they in good preservation?

Is the property of the War Department well looked after, are encroachments resisted, and are those portions of land not immediately required for the public service let to the best advantage?

Military Store Branch.

Is the establishment sufficient, and not more than sufficient, for the performance of the duties?

Is the supply of military stores on hand in your opinion sufficient, and not more than sufficient, for the requirements of the station.

Are the storehouses, magazines, and buildings attached to the Store Branch, in your opinion equal to, or beyond the requirements of the service, and are they maintained in good repair?

Are the duties of the Store Branch properly and promptly executed, in meeting the requisitions made upon it by the other branches of the service?

With a view to ascertaining the state and number of the stores in charge of the Military Storekeeper, you will each year, or oftener if required, appoint a properly qualified officer for the purpose of effecting a survey of the stores in charge of the Military Storekeeper, who will certify as to the general condition of the stores, the way in which they are kept, and whether any portion of them is obsolete or unfit for service from any cause; and he will also certify to the general correctness of the numbers on charge, by selecting such articles as he may think proper, and causing them to be counted, so that from these examples an approximate opinion may be formed as to the state of the general store.

Once in every five years you will cause a complete remain or taking of stock to be effected, and appoint a properly qualified officer to perform that duty.

Your order will be required for all issues of stores not previously sanctioned by authority from this office, and you will, without delay, report such order to the Secretary of State, explaining, at the same time, your reasons for granting it.

The annual certificate for increase of pay for the head of the Store Branch in your command will, in future, be submitted to you for approval or otherwise, as you may think fit.

Barrack Branch.

Are the barrack inspections made with regularity, and are the orders relative to barrack damages chargeable to the troops strictly carried out?

Are the issues of bedding and stores made with regularity, and with due regard to the convenience of the troops?

Do the several Barrack-Masters, in carrying on the duties of their departments, co-operate cordially with the military authorities?

Commissariat Branch.

Is the establishment sufficient, and not more than sufficient, for the performance of the duties?

Are the financial duties of the Controller and Accountant efficiently performed?

Are the troops well and regularly supplied with their rations of provisions, forage, fuel, and light?

Is the necessary transport furnished for all authorized services?

Are the contracts entered into for the various supplies and services of the department efficiently and economically managed?

Should you deem it necessary to order the issue from the Commissariat Stores of any extra rations of provisions, forage, or fuel and light, or pecuniary allowance in lieu, over and above the allowance granted by the Royal Warrant, or sanctioned by the local regulation of the command, you will report the same, without delay, for the approval of the Secretary of State, explaining your reasons for granting it.

Purveyor's Branch.

Is the establishment sufficient, and not more than sufficient, for the performance of the duties?

Are the supplies furnished with due regularity to the hospitals; and are they uniformly of good quality, and suitable for the use of the sick?

Are the diet rolls, and other documents required by the Purveyor from the Surgeons, punctually rendered to him, and do the Paymasters of regiments receive the stoppage returns with regularity from the Purveyor?

31st March, 1859.

The attention of the Medical Officers of the Army is requested to the absolute necessity which exists for their registering their names under the new "Act to regulate the Qualifications of Practitioners in Medicine and Surgery," otherwise, by the 36th Section of the said Act, they become disqualified for Army Medical Officers; and the Registrar has informed me, that "after the 1st of July next (as the date will stand in the amended Act) no unregistered Army Surgeon will be able to sign a valid certificate or to give evidence in a court of justice, or even to draw his pay, and by Section 40 he will be liable at any time to be sued for penalties."

Clause 15 of the above Act further states—

"Every person now possessed, and (subject to the provisions hereinafter contained) every person hereafter becoming possessed, of any one or more of the qualifications described in the Schedule (A) to this Act, shall, on payment of a fee, not exceeding two pounds in respect of qualifications obtained before the first day of January, one thousand eight hundred and fifty-nine, and not exceeding five pounds in respect of qualifications obtained on or after that day, be entitled to be registered on producing to the Registrar of the Branch Council for England, Scotland, or Ireland, the document conferring or evidencing the qualification or each of the qualifications in respect whereof he seeks to be so registered, or upon transmitting by post to such Registrar information of his name and address, and evidence of the qualification or qualifications in respect whereof he seeks to be registered, and of the time or times at which the same was or were respectively obtained."

The name and address of the Registrar is "Dr. F. Hawkins, Medical Registration Office, 32, Soho-square, London, W.," and the fee is 2*l*.

(Signed) T. Alexander, *Director-General.*

Sir, ... 9th May, 1859.

I have the honour to transmit a copy of queries drawn up by the "Sub-Committee of the National Association for the promotion of Social Science;" and in soliciting your early replies, I request that you will have the goodness to detail the same with as much care and exactitude as possible.

(Signed) T. Alexander, *Director-General.*

The Principal Medical Officer, &c.

The Secretary of State for War having approved of the adoption of a new system of hospital records, with the view of securing more accurate information relative to the sickness, mortality, &c., of the army, I have the honour to request you will be good enough, during the period you are in

medical charge of a detachment of the , to furnish to the surgeon of that the particulars stated in the certificate book which accompanies this, regarding every man who may require your professional assistance.

You will be pleased to transmit each certificate as soon as possible after the termination of the case, and on the withdrawal of the detachment from your charge you will at the same time return the book to the head-quarters of the corps for future similar use.

(Signed) T. ALEXANDER, *Director-General.*

Sir, 10th May, 1859.

With reference to the adoption of the new system of hospital records, I have the honour to inclose for your use, when necessary, a memorandum for the guidance of private practitioners who may be placed in charge of parties of your corps.

On a detachment leaving the head-quarters for a station where it will be placed in charge of a private practitioner, it will be your duty to forward therewith a copy of the inclosure, together with a medical certificate book, and you will take care that on the return of the detachment to head-quarters the book is duly sent back to you. The cases which are thus reported to you should be entered in the usual way in your admission book, adding a note that the men were under the care of a practitioner at the time, and specifying the station; the requisite entry must also be made in the medical histories sheets of the respective men.

Such further supplies of the memorandum, and any additional certificate books you may require, can be obtained, in the usual way, from the War Office.

(Signed) T. ALEXANDER, *Director-General.*

The Surgeon, &c.

Sir, 18th May, 1859.

I have the honour to forward, for your information and guidance, the following extract from a letter addressed to me by order of the Secretary of State for War on the 10th instant :—

"That in all hospitals to which no governor is appointed, the purveyor be placed, by his instructions, distinctly under the Principal Medical Officer of the hospital, whose orders he shall always obey; but in case of apparent extravagance, either in quantity or quality, the purveyor shall report to the Purveyor-in-chief, after obeying the requisition, in order that the case may be brought under the cognizance of the Director-General.

"The orders received from the Principal Medical Officer by the purveyor shall only apply to the requirements of the sick, and the purveyor is to have a right to require the order, when it involves expense, to be given in writing."

(Signed) T. ALEXANDER, *Director-General.*

The Principal Medical Officer, &c.

Scale of Payment of Civil Surgeons attending Troops on Board Ship.

War Office, 24th May, 1859.

The following Regulation for the payment of Civil Surgeons attending troops on board ship, is established instead of that dated the 30th June, 1856 :—

A Civil Surgeon attending troops on board ship will be allowed the following rates of head-money, without reference to the actual duration of the voyage :—

Between this country and Gibraltar, 4*s.* for each man or woman.

Between this country and Malta, Corfu, or North America, 6*s.* for each man or woman

Between this country and Cape of Good Hope, St Helena or Mauritius, 7*s.* 6*d.* for each man or woman.

Between this country and West Coast of Africa or West Indies, including Jamaica, Bermuda, Honduras and Bahamas, 8*s.* for each man or woman.

Between this country and Ceylon, China or East Indies, 12*s.* for each man or woman.

Between this country and Australia, New Zealand or Falkland Islands, 12*s.* for each man or woman.

Half the above rates will be allowed for each child between two and fourteen years of age.

When the vessel is a steamer, only two-thirds of the above rates will be allowed.

The Civil Surgeon will not be provided at the public expense with a passage back to the station from which he embarked, nor messed at the public expense.

The above Regulations do not apply to Surgeons belonging to vessels, or engaged by the owners of vessels or their agents, as their services will be remunerated by the Admiralty, if not already provided for in the terms under which the troops are conveyed.

(Signed) B. Hawes.

Sir, 26th July, 1859.

I have the honour to request you will be pleased, at your earliest convenience, to arrange and transmit to this office, a special topographical report of the stations, barracks, and hospitals under your superintendence, the site and aspect of each building, the size of the rooms, for what number of men constructed, modes of ventilating, sewerage, and drainage, and every other circumstance that, in your opinion, may influence the fitness, or otherwise, of the several buildings for the purposes to which they are appropriated; together with a full description of latrines, bath-rooms, cook-houses, &c. Drawings of the different barracks and hospitals will be most acceptable, especially as regards the interior arrangements.

You will be pleased to be as particular as possible in describing the effects of any local influences on the constitution of the European soldier.

(Signed) T. Alexander, *Director-General.*

The Principal Medical Officer, &c.

30th July, 1859.

Many soldiers of short service, who did not bear marks of medical treatment, having been sent to Chatham to be discharged, the Director-General begs to call the attention of medical officers to this subject, and to inform them that every soldier, before being brought forward for discharge on account of a medical disability, must bear marks of the treatment usually adopted in practice, to show that proper remedial means have been used to restore him to health before he is pronounced unfit for further service.

Soldiers are often invalided for lumbago, epilepsy, diseases of the joints, and visceral affections, all of which, in the early stages, would be much benefited by local depletion, and it is to such cases that the attention of medical officers is specially directed, and not to those of advanced organic disease or of permanent deformity.

The Director-General recommends, where topical depletion is considered necessary, that cupping be resorted to, as it is a mode of treatment oftentimes more efficacious and always less expensive than the application of leeches.

(Signed) T. Alexander, *Director-General.*

Sir, 15th August, 1859.

I have the honour to request you will be good enough to make such arrangements as will insure that all recruits enlisted at * be examined by a surgeon or surgeon-major, and you will be pleased to direct that the several assistant-surgeons doing duty at that station be, by rotation, present at all examinations of recruits, in order that they may be properly instructed in this important duty.

(Signed) T. Alexander, *Director-General.*

The Principal Medical Officer, &c.

Sir, 22nd August, 1859.

Adverting to the large number of orderlies who have occasionally been employed on board ships conveying invalids from abroad, I have the honour to inform you that the Secretary of State for War has directed that for the future the medical officer in charge shall furnish, weekly, a certificate to the officer commanding the troops, specifying the number of men on the sick list each day of the week; these certificates must be appended (after having been countersigned by the commanding officer) as vouchers to any charge that may be made for orderlies, and which must not exceed one to every ten sick men (unless under very special circumstances, which must be fully detailed and reported); I have, therefore, to request you will be pleased to issue the necessary instructions on the subject to every medical officer embarking for England or elsewhere in charge of invalids, and I beg to suggest that you will so distribute the men as to avoid, as far as possible, sending home many serious cases in one ship.

(Signed) T. G. Logan, *Inspector-General,*

The Principal Medical Officer, &c. for the Director-General.

Sir, 18th October, 1859.

His Royal Highness the General Commanding-in-chief having directed that such instructions may be issued to the medical officers of the army as will inculcate their cheerful co-operation with the wishes of commanding officers, and insure a proper sense of subordination (which I regret to state has been lost sight of in some occurrences that have been recently brought to the notice of His Royal Highness by the General Commanding-in-chief in India), I have the honour to request that you will be pleased to convey to the medical officers serving at the station under your superintendence my hopes that every member of the department will not only be ready to obey the orders of, but will also yield a most cheerful response to the wishes of his commanding officer on all occasions, ever bearing in mind that the responsibility of a commanding officer embraces the welfare of the sick as well as that of the effective soldier of his battalion.

I further have to request, that whenever medical officers in charge of troops may think it necessary to make suggestions of a sanitary or other nature, they will do so to their immediate commanding officer, sending a copy of such suggestions to the Principal Medical Officer of the station for my information, agreeably to the instructions laid down in the Hospital Regulations.

(Signed) T. Alexander, *Director-General.*

The Principal Medical Officer, &c.

Sir, 31st October, 1859.

As it is intended that, in future, the period comprised in the Annual Medical Return shall be from 1st January to 31st December, instead of from

* Aldershot, Woolwich, Devonport, Shorncliffe, Colchester, Chatham, Channel Islands Ireland.

1st April to 31st March, as at present, you will be good enough to make your next Report at the close of the current year, and to include in it a period of nine months only instead of twelve. In the Annual Return the sick of all detachments, and the deaths both in and out of hospital, must be included, as one of the objects of such Return is to show correctly the sickness and mortality of the whole regiment. To enable you to do so, you will make arrangements with the Medical Officers in charge of detachments to furnish you with the information requisite to complete the Return.

(Signed) T. ALEXANDER, *Director-General.*

The Surgeon, &c.

Sir, 10th December, 1859.

I have the honour to inform you that, in compliance with the instructions of the Secretary of State for War, weekly sick returns will in future be required from all troops serving in the United Kingdom in lieu of the present monthly returns.

With a view, however, to complete the existing series, you will be pleased to continue to forward the monthly return till the end of the current year, when it will no longer be required, but the vaccination return is to be furnished monthly, as at present.

Forms for the weekly sick return will be forwarded to you, and are to be taken into immediate use. The returns are to be made up to the Friday night, and are to be posted as early thereafter as possible, so as to reach this office on Monday morning. In garrisons and camps where there is a Principal Medical Officer, they are to be sent to him for transmission; in all other cases they are to be forwarded, in the usual manner, direct to this office.

It must be obvious that under this arrangement the sick of detachments, unless in the immediate vicinity, cannot be included as at present in the head-quarters return, but must be reported direct to this office. For the same reason detached batteries of artillery will forward their weekly returns direct. In the Artillery returns all the men of that branch of the service who have been treated in hospital are to be included though they may belong to other brigades, but care must be taken that they are also included in the strength.

(Signed) T. ALEXANDER, *Director-General.*

The Surgeon, &c.

10th December, 1859.

The Director-General begs to make known to the Medical Officers of the Army, that it is intended to publish annually Reports of cases of disease or of injury, and Papers upon any scientific subject that may be thought useful to the service, or interesting to the profession; Medical Officers are therefore invited to forward such Reports or Papers with their Annual Returns, in order that a selection may be made for publication.

16th December, 1859.

The Medical Officer in charge of the depôt battalion at is requested to insert in each Weekly Return, in the space left for "Remarks," a statement showing the strength of each of the depôts composing the battalion.

To the Medical Officers in charge Depôt Battalions.

Examination Papers, 1860.

Competitive Examination for Admission into the Army Medical Service.

In determining the relative merits of the candidates, so far as they can be ascertained from answers to printed questions, regard will be had both to the number of questions answered, and to the accuracy and completeness of each answer. But it is not expected that all the questions will be fully answered by every candidate. For they are not only intended for ascertaining whether each candidate is qualified for an appointment, but for testing, by both their number and their difficulty, the relative abilities of the best candidates,—a design which is essential to a competitive examination, and which cannot be fulfilled unless some questions are asked to which only the best candidates can give good and complete answers.

Competitive Examination, held at 6, Whitehall Yard, in January 1860, for Commissions in the Army Medical Service.

Natural History, &c.—Dr. Hooker.—Monday, January 9, 1860.

Select five or more of the following questions, and answer them as fully as you can.

1. What are the principal fixed and essential vegetable oils? and from what parts of what plants are they procured?

2. Enumerate the principal roots and grains from which alcoholic drinks are distilled in various parts of the world.

3. Enumerate the chief unhealthy stations of the British army, and give some account of their several climates as regards temperature and humidity.

4. What are the principal disinfectants, and how are they prepared? and which are most generally accessible?

5. What is the composition of the common gas used for lighting? what are the products of its combustion, and their qualities?

6. Enumerate the entozoa which inhabit man; give their proper names, the organs they infest; and state what you know of their habits, origin, and development.

7. Give the names, natural orders, and native countries of the drastic purgatives in common use.

8. What are the principal floral organs, and what their relative arrangement?

9. Distinguish the kinds of æstivation of the calyx and corolla, and give examples of plants in which they occur.

10. What are the characters of the natural order Cruciferæ, and of its tribes.

11. Enumerate the bones in the hind legs of the horse; and give their homologues in man.

12. Describe the dental system in rodentia, carnivora, and ruminantia.

13. Describe the construction of a galvanic pile, and explain its action.

14. Define tersely and accurately the terms ardent, irritant, errhine, tough, elastic, dense, linear, plane, ovate, ovoid, polyhedral, polygonal; and add their derivations.

15. In what forms and conditions do mercury, antimony, and potash occur in nature?

SURGERY.—Mr. PAGET.—Monday, January 9, 1860.

1. Describe and compare the principal effects of acute inflammation in mucous, serous, and synovial membranes, taking for instances the conjunctiva, tunica vaginalis, and synovial membrane of the knee.

2. Make lists of the instruments and materials for first dressings, that you would require for an amputation above the knee, tracheotomy, and ligature of the subclavian artery.

3. What are the injuries of which the symptoms most resemble those of fracture of the neck of the femur within the capsule of the joint? and how may they severally be distinguished from it?

4. Describe "union by the first intention," and state the best means of promoting it.

5. What are the diseases of which the symptoms are most like those of calculus in the urinary bladder? By what signs, besides those obtained by sounding, may they severally be distinguished?

6. Write diet-tables such as you may have seen in any hospital, distinguishing "Full Diet," "Half or Middle Diet," "Low Diet."

7. Describe the chief forms of curvature of the spine, and the morbid conditions of the bones and other structures on which they severally depend.

8. A lad, 15 years old, was admitted into hospital with a swelling in his fore arm. He said that, sixteen days before admission, he wounded himself in the fore-arm with a sharp-pointed knife; that a little blood flowed from the wound; that the flow stopped of itself; and that then he bound up the wound, and it soon healed. His arm, however, he added, felt stiff after the wound; so he kept it quiet; and nothing appeared wrong till eight days after the injury, when the parts at and about the wound began to swell; and they continued to swell till he came to the hospital.

The scar of the wound was about a quarter of an inch long, and very nearly right over the course of the ulnar vessels in the middle of the fore-arm. Below the scar, and extending nearly to the bend of the elbow, was a smooth, firm, oval swelling, somewhat painful on pressure. The swelling felt as if bound down by the fascia; no pulsation could be felt in it; but, with the ear resting over it, a prolonged blowing sound was heard, synchronous with the pulse at the wrist. All the parts over and about the swelling appeared healthy. The pulse was distinct, and of due time and force, in both the radial and ulnar arteries below the swelling.

What was this case? and what was the proper treatment of it?

ANATOMY AND PHYSIOLOGY.—Mr. BUSK.—Tuesday, January 10, 1860.

1. Describe the origin and course of the *profunda cervicis* artery, and the dissection required to display it on the posterior aspect of the vertebræ; mentioning all the parts exposed in the dissection.

2. Describe the diaphragm, its connexions, relations, and action.

3. Describe the muscles of the tongue.

4. Classify the various kinds of articulation, giving an instance of, and describing the motions peculiar to, each kind.

5. Mention the properties by which living bodies and tissues are distinguished from dead.

6. Describe the process of coagulation of the blood, noticing the principal explanations of it that have been offered, and the conditions by which it is hastened, retarded, or prevented, within or without the body.

7. Describe the nature and causes of the various sounds attending the heart's action.

8. Describe the structure of the human ovary and ovum; and contrast the latter with that of a bird.

MEDICINE.—Dr. PARKES.—Tuesday, January 10, 1860.

1. What do you mean by malaria? and what are its presumed sources? Give a short account of the principal diseases usually ascribed to it.

2. Describe fully a case of small pox in all its stages and complications. Give the treatment of a confluent case in an adult.

3 What are the causes of pericarditis?

4. What are the causes of perforation occurring in the alimentary canal at any point from the cardiac orifice to the anus? How would you treat a case of peritonitis from perforating ulcer of the stomach?

5. Describe the microscopic characters of the following urinary sediments: ammoniaco-magnesian phosphate, uric acid, cystine, granular and hyaline casts, renal epithelium, and blood.

6. How would you diagnose the following diseases—ovarian dropsy, fibrous tumour of the uterus, large malignant tumour of the uterus?

7. Mention the pharmacopœial preparations of lead. For what is lead chiefly used internally in medicine? By what methods, and through what channels, is lead eliminated from the body?

8. What are the characters of good drinking water; and what are the usual impurities in the shallow wells of a large town?

Competitive Examination, held at Chelsea Hospital, in August, 1860, for Admission of Candidates into the Army Medical Service.

ANATOMY AND PHYSIOLOGY.—Mr. BUSK.—Monday, August 13.

1. Describe the general characters of the ribs, and the peculiarities by which certain ribs are distinguished. Enumerate the muscles engaged in their elevation and depression.

2. Give a description of the cœcum and the ilio colic valve; and state the difference in point of structure between the large and small intestines.

3. Describe, in the order in which they occur, the parts brought into view in exposing the anterior surface of the anterior scalenus muscle.

4. Describe the several parts brought into view in dissecting and removing the short muscles of the thumb and abductor indicis.

5. Give the physical and chemical characters of yellow elastic tissue, and notice the principal situations in which it exist in the human body.

6. Mention the circumstances which increase or diminish the amount of carbonic acid exhaled by animals.

SURGERY.—Mr. PAGET.—Monday, August 13, 1860.

1. Enumerate not less than five kinds of wounds which you would *not* attempt to heal by the first intention; and state how you would treat each of them.

2. Describe the most frequent appearances, after death, of enlargement of the middle lobe of the prostate gland; and the symptoms by which that condition may be known, or suspected, during life.

3. Describe fully the proper treatment of a perineum recently and completely ruptured during parturition.

4. What are the conditions on which secondary hæmorrhages after amputation depend, and what are the best modes of treating them?

5. Write Latin prescriptions for the following medicines for hospital use, namely—colocynth and calomel pills; jalap and calomel pills; compound senna draught; zinc lotion; hydrochloric acid gargle.

6. Describe the several forms of hydrocele connected with the testicle and spermatic cord, including those that occur in infancy, and mentioning particularly the characters of the fluids contained in them.

7. Describe the usual symptoms and progress of an ordinary case of cancer of the rectum. Under what circumstances, in the course of such a case, would you think it proper to open the colon?

NATURAL HISTORY, &c.—Dr. HOOKER.—Tuesday, August 14.

Answer five or more of the following questions:—

1. What is meant by the respiration of plants, and how is it effected?

2. Give the botanical characters of the natural orders, labiatæ, valrianeæ, solaneæ; and mention the medicinal plants they contain.

3. Contrast the reproductive systems in phanerogamous and cryptogamous plants.

4. By what characters are the orders of dicotyledons grouped into four divisions, and of monocotyledons into three?

5. What are the kinds of aloes used in medicine, how are they distinguished, and where do they come from?

6. To what constituents are the nutritious properties of wheaten bread due? Give their chemical composition, and explain the changes they respectively undergo during the operation of mastication and digestion.

7. Describe the nature and products of acetous and vinous fermentations.

8. Give the dental formula and peculiarities of the alimentary canal in ruminants.

9. Describe the structure and mode of development of a bird's feather.

10. Indicate the parts of the alimentary canal in which the different intestinal entozoa are chiefly met with.

11. Give the chemical composition of sea water, and contrast hard and soft waters.

12. Define tersely the terms—etiolate, diluent, demulcent, viscid, plastic, elastic, dense, transparent, and translucent.

MEDICINE.—Dr. PARKES.—Tuesday, August 14.

1. What are the causes of anasarca? How is the effusion produced in each case, and how would you treat the principal forms?

2. Describe the appearances seen after death in the abdomen in the following diseases:—typhoid fever—phthisis, with intestinal complications—dysentery.

3. What are the physical signs of the following diseases?—1. Pleurisy

on the right side, with great effusion. 2. Obsolete pleurisy on the left side, with great contraction. 3. Cancer, commencing in the mediastinum, and infiltrating the whole of the upper lobe of the right lung. 4. Extensive tuberculosis and cavities throughout the left lung. 5. Great enlargement of the bronchial glands in a child.

4. Describe the symptoms produced by the passage of a renal calculus. What is the composition of the principal calculi? How would you treat a case of presumed calculous pyelitis?

5. What are the chief diseases to be watched for in the first week after delivery? Give their symptoms and treatment.

6. What are the preparations of mercury in the pharmacopeia? How would you test for mercury in a complex fluid? What are the chief symptoms and the measures to be adopted in chronic poisoning from mercury?

Examination of Assistant-Surgeons previous to promotion to the rank of Surgeon.

Army Medical Department, 10th July, 1860.

A.

MEDICINE, &c.—Dr. PARKES.

1. What part do you assign to temperature amongst the causes of disease? What are the chief diseases usually ascribed to (*a*) excessive heat, (*b*) extreme cold, (*c*) great and sudden changes from heat to cold, and the reverse? How would you treat those several diseases?

2. State what opinions your observations have led you to form with respect to the effects of diet on the health of soldiers. Discuss particularly the questions of the influence of alcohol when taken in large and in moderate quantities.

3. What are the chief diseases of the heart you have had to treat since you entered the army? What were the symptoms of those diseases; how did you treat them; and what was the result? Enter minutely into the causes of those diseases in the men under your care. What share had the military duties in their production? State precisely any means of prevention that you could recommend.

4. Describe concisely the symptoms, post-mortem appearances, causes, treatment, and complications of dysentery.

5. What do writers mean by the term "typhus of armies?" Discuss fully the questions of diagnosis and etiology connected with this term.

6. An attack of cholera occurs in a large town close to the barracks where you are stationed. The Commanding Officer requests you to frame such precautionary measures as can be adopted without quitting the barracks. What would be your list of recommendations?

7. You are applied to by the Engineer Department to state how much water will be required for an hospital of 500 men; it being understood that the supply will be sufficient for cooking, washing, bathing, and cleansing sewers. At the same time, a bottle of water is submitted for your opinion as to its quality. What would you reply to the first question, and how would you judge of the second point?

8. You are required to organize a field hospital for 300 men; tents only are allowed, but these you can have in any number; no sewers can be made: How would you arrange, ventilate, and furnish the tents? How would you organize your kitchen and dispensary? And what would be your arrangements for the removal of excrementitious matters?

B.

SURGERY.—Mr. PAGET.

1. Describe the operation of resection of the elbow-joint; and briefly the chief cases of injury and disease for which it is appropriate.

2. What regulations have you seen enforced for the prevention or diminution of venereal disease among soldiers? If they have been unsatisfactory, how would you improve them?

3. What are the most frequent complications that arise during an acute gonorrhœa? Name not less than five: describe them, and state the best means for their prevention and cure.

4. For what injuries in the lower extremity, produced by musket-balls, and for what consequences of such injuries, would you amputate, supposing the patients to have been previously healthy soldiers?

5. In cases of punctured wounds of limbs, from which blood is no longer flowing, what would lead you to believe that a principal artery is wounded? In such belief, what would you do?

6. Write the articles, and quantities of each, contained in the "low diet," "half diet," and "entire diet," of the Hospital Regulations.

7. State the best means for detecting the deceptions of those who pretend blindness either of one or both eyes, or deafness of one or both ears, or stiffness of a joint (say the elbow), or paralysis of an arm or leg.

8. A man is found insensible; how would you ascertain whether the insensibility be due to injury of the head, drunkenness, apoplexy, poisoning with opium, or exhaustion through want of food?

9. Describe the characters and tests of the following deposits in urine: lithic acid, triple phosphate, oxalate of lime, mucus, pus.

C.

ANATOMY, PHYSIOLOGY, AND NATURAL SCIENCES.—Mr. BUSK and Dr. HOOKER.

1. Describe in their proper order, as displayed in dissection, the parts situated on the anterior aspect of the forearm, including the bend of the elbow.

2. Describe the parts concerned in the femoral hernia, and the anatomical conditions distinctive of that form of rupture.

3. Describe the minute anatomy and the functions of the kidney, noticing the sources whence the principal elements contained in its secretion are derived.

4. Describe the membranous portion of the male urethra, its form, relations, and structure.

5. From what parts of what kinds of plants is quinine procured? Describe, in general terms, the method of extracting the alkaloid; mention the plants that afford the best substitutes for quinine.

6. Enumerate the principal entozoa which infest the human subject, and state what you know of their habits.

7. Which is most nutritious: rice-flour, or pea-flour? Upon what do their relative qualities as articles of diet depend?

8. Enumerate the principal animal and vegetable oils; state the sources whence they proceed; and distinguish the volatile, fixed, and irritant.

Army Medical Department, August, 1860.

A.

MEDICINE, &c.—Dr. PARKES.

1. Much discussion has taken place with regard to the etiology of yellow fever, and its exact relation to diseases of undoubted malarious origin. Describe the symptoms and treatment of yellow fever, and enter as fully as you can into the questions above alluded to.

2. What are the pulmonary diseases you have had to treat since your entrance into the service? Give their symptoms and treatment, and state any opinions you have formed from your own experience, with respect to their causes, and the preventive measures which should be adopted.

3. What opinions are now generally received respecting the causes of scurvy? How does the scorbutic taint modify the symptoms of the following diseases:—typhus, pneumonia, pleurisy, and dysentery?

4. What are the symptoms and causes of beri-beri?

5. What are the chief measures used for purifying water from suspended and dissolved organic substances? What diseases have been supposed to be produced or aggravated by the use of such impure water?

6. What is the ordinary diet of the soldier on home service? Your opinion being asked as to the kind and quantity of food which should be supplied in a campaign in Europe, expected to be extremely harrassing and laborious, draw up such a scale of diet as will in your opinion meet the case.

B.

SURGERY.—Mr. PAGET.

1. Write such regulations for the general treatment of men nearly drowned as may be carried out by non-professional persons.

2. Describe briefly the characters and the appropriate treatment of burns of different degrees of severity.

3. Enumerate the contagious diseases of the skin (excluding the exanthematic); describe the distinctive characters and treatment of each. How would you try to prevent their spreading in a regiment?

4. Write lists of all that should be prepared for the performance of, and first dressings after, the operations, (1) amputation above the knee; (2) tracheotomy; (3) trephining.

5. What precautions do you observe in the administration of chloroform? In case of any untoward symptoms arising during its administration, what should be done?

6. What are the most frequent conditions of the bones, and the parts around them, in old cases of ununited fracture?

7. What are the principal injuries and diseases of the head for which the removal of bone, by trephining or otherwise, should be generally advised.

C.

ANATOMY, PHYSIOLOGY, AND NATURAL SCIENCES.—Mr. BUSK and Dr. HOOKER,

1. Describe the diaphragm, its connexions, relations and function.

2. Describe the fasciæ of the abdomen, together with those of the pelvis and perineum in the male.

3. Give an account of the structure and properties, physical and vital, of a middle-sized artery, and of the capillary vessels.

4. What are the conditions upon which the rhythmical movements of the heart depend, and to what causes are its sounds due?

5. What are the chief active principles in opium? Describe in general terms the method of extracting them.

6. What are the wild British poisonous plants which give rise to the most frequent cases of accidental poisoning? What symptoms do they produce?

7. What is yeast? Give the rationale of its use in baking bread.

8. Enumerate the principal plants from which sugar is procured. Explain its use as an article of diet; and distinguish grape from cane sugar.

Army Medical Department, September, 1860.

A.

MEDICINE, &c.—DR. PARKES.

1. To what salts is the hardness of water owing, and what injurious effects are usually attributed to these salts?

2. Describe fully the effects produced by water holding lead in solution, and the mode in which the presence of lead is to be chemically proved.

3. What cubic amount of air is allowed by the regulations to each soldier in barracks and hospitals in Great Britain? What are the best means of ventilating barrack-rooms?

4. What diseases of the liver are most commonly recorded in the army returns? How are they recognized; what are their causes; and how may they be cured or prevented?

5. Describe a case of delirium tremens, and enter fully into the question of differential diagnosis.

6. What are the varieties of tape-worm, and in what countries are they most common? Enumerate the usual remedies.

B.

SURGERY.—MR. PAGET.

1. If hospital gangrene should appear among any number of wounded men under your charge, would you, or would you not, put those whom it affected in separate wards or tents? Give your reasons for the course you would adopt.

2. State some of the cases of secondary hæmorrhage in which it is not advisable to attempt to tie a wounded artery at the seat of the wound.

3. Describe any modifications in the characters or progress of venereal disease which you have observed in connection with varieties of climate, food, or any other circumstances affecting the general health of bodies of men, and what changes in the ordinary treatment of the diseases have appeared to you advantageous.

4. Describe the earliest symptoms of traumatic tetanus, and the general plan of treatment that you would adopt if the patient were a previously healthy man, and the wound trivial.

5. Describe the chief differences in the healing processes following gun-

shot wounds and incised wounds, and the general treatment of gun-shot wounds of soft parts.

6. Suppose a penknife driven half-an-inch into the front of a healthy man's eye, what treatment would you advise, and what consequences are most likely to ensue?

C.

ANATOMY, PHYSIOLOGY, AND NATURAL SCIENCE.—Mr. BUSK and Dr. HOOKER.

1. Describe the shoulder joint, enumerating, in their proper order, the muscles surrounding it, and noticing the mode in which the various movements of the joint are affected by them.

2. Describe the parts exposed on the entire removal of the pectoralis major muscle.

3. Describe the different regions into which the abdomen is divided, and enumerate the parts contained in each.

4. Describe the lachrymal apparatus.

5. Enumerate the five principal races of man; give their distinctive characters and native countries.

6. How are the several kinds of opium distinguished? What are the principal alkaloids contained in them, and which of these are most active as medicinal agents?

7. What are the products of the combustion of coal and of common gas

OFFICERS

OF THE

ARMY MEDICAL DEPARTMENT.

ARMY MEDICAL OFFICE.

Director-General.....	T. Alexander, C.B.	
Inspector-General	T. G. Logan, M.D.	*Sanitary Branch.*
Deputy Inspector-General..	T. G. Balfour, M.D.	*Statistical Branch.*
Deputy Inspector-General..	H. Mapleton, M.D.	*Medical Branch.*
Staff Surgeon	W. H. Fairbairn, M.D.	„ „
Staff Surgeon	H. F. Smith. M.D.	*Statistical Branch.*
Staff Surgeon	T. G. Fitzgerald	*Apothecary's Department.*
Dispenser	R. G. Sampson	

INSPECTORS-GENERAL OF HOSPITALS.

Name.	*Date of Appointment.*	*Station.*
W. Linton, M.D., C.B.	7 December 1858	East Indies.
J. Forrest, M.D., C.B.	31 „ „	Malta.
W. C. Humfrey	31 „ „	Dublin.
J. R. Taylor, C.B.	31 „ „	Chatham.
J. B. Gibson, M.D., C.B.	31 „ „	Aldershot.
T. G. Logan, M.D.	8 April 1859	London.
D. Dumbreck, M.D., C.B.	19 July „	Cape of Good Hope.

DEPUTY INSPECTORS-GENERAL OF HOSPITALS.

C. Whyte	6 January	1854	Bombay.
T. Atkinson, M.D.	28 March	„	Ceylon.
R. Lawson	8 December	„	Jamaica.
T. D. Hume, M.D.	29 June	1855	Cork.
J. E. Williams	20 July	„	Madras.
S. M. Hadaway	25 January	1856	East Indies.
A. Gordon, M.D., C.B.	25 „	„	Dublin.
J. Mouat, *V.C.*, C.B.	7 December	1858	New South Wales.
T. R. Jameson, M.D.	31 „	„	West Indies.
A. Anderson, M.D.	31 „	„	East Indies.
J. C. G. Tice, M.D., C.B.	31 „	„	East Indies.
J. E. T. Parratt.	31 „	„	Woolwich.
J. D. McIllree	31 „	„	Nova Scotia.
G. S. Beatson	31 „	„	Corfu.
G. Taylor, M.D.	31 „	„	Canada.
J. Paynter	31 „	„	Gibraltar.
P. Gammie	31 „	„	
R. Dane, M.D.	31 „	„	Curragh.
C. Scott, M.D., C.B.	31 „	„	
A. Stewart	31 „	„	
F. W. Innes, M.D., C.B.	31 „	„	
J. Fraser, M.D., C.B.	31 „	„	Shorncliffe.
T. H. K. Innes, C.B.	31 „	„	
W. M. Muir, M.D.	31 „	„	China.
T. Longmore	31 „	„	Colchester.
S. Currie, M.D.	18 January	1859	Hong Kong.
G. Clerihew, M.D.	26 April	„	Mauritius.
R. J. O'Flaherty	19 July	„	Portsmouth.
T. G. Balfour, M.D.	22 „	„	London.
H. Mapleton, M.D.	26 August	„	London.

SURGEONS-MAJOR.

Name.	*Date of Appointment.*			*Station.*
J. Clark, M.D.	5	November	1852	Canada.
W. Odell, M.D.	3	March	1854	Canada.
G. G. Robertson, M.D.	28	"	"	York.
R. Smith.	28	"	"	Dublin.
J. S. Prendergast, M.D.	28	"	"	Chatham.
J. T. Telfer	28	"	"	China.
G. Carr	28	"	"	Bermuda.
H. Pillean	7	June	"	Belfast.
C. C. T. Belmage, M.D.	10	November	"	Plymouth.
G. Anderson	8	December	"	Edinburgh.
J. G. P. Moore	8	"	"	Cape of Good Hope.
W. Denny	12	January	1855	China.
J. G. Wood, M.D.	9	February	"	West Indies.
W. L. Langley, M.D.	16	"	"	Liverpool.
E. J. Barrow, M.D.	16	"	"	Cav. Depôt Canterbury.
H. Hadley, M.D.	23	March	"	Channel Islands.
F. Foaker	24	April	"	Malta.
H. C. Reade	1	May	"	West Indies.
C. Cowen	22	June	"	Dublin.
W. Carson, M.D.	29	"	"	London.
E. W. Stone, M.D.	29	"	"	Glasgow.
W. Home, M.D.	29	"	"	Birr
J. Muir, M.D.	6	July	"	Winchester.
W. Sall, M.D.	20	"	"	West Australia.
J. McGregor	3	November	"	Ceylon.
R. Templeton, M.D.	7	December	"	Bristol.
J. Davies	8	January	1856	Great Yarmouth.
T. P. Matthew	31	August	1858	Chatham.
J. Maitland, M.D.	1	October	"	Stirling.
A. T. Jackson, M.D.	1	"	"	Athlone.
G. Belmage	1	"	"	Aldershot.
J. C. Cameron, M.D.	1	"	"	Walmer.
F. B. Waring	1	"	"	Ceylon.
R. K. Prendergast	1	"	"	Belfast.
J. Grant	1	"	"	Nova Scotia.
J. Stewart	1	"	"	Malta.
E. Moeller	1	"	"	Fermoy.
A. D. Taylor, M.D.	1	"	"	Fermoy.
J. A. Lawson, M.D.	1	"	"	Cork.
H. Franklin	1	"	"	Chatham.
A. S. Thomson, M.D.	10	"	"	China.
J. Dunlop	28	August	1859	Mauritius.
D. D. M.C. McDonald	4	October	"	Cork.

STAFF SURGEONS.

G. Williamson, M.D.	13	July	1847	Chatham.
J. S. Smith, M.D.	27	October	1848	New Zealand.
G. M. Webster, M.D.	1	December	"	New South Wales.
J. A. Fraser, M.D.	22	"	"	East Indies.
S. M.V. Lloyd, M.D.	22	"	"	Aberdeen.
J. W. Mostyn, M.D.	16	March	1849	Cav. Depôt, Maidstone.
J. Summers, M.D.	28	August	"	Cape of Good Hope.
L. Barron, M.D.	25	September	"	Chatham.
J. C. Dempster, M.D.	5	November	1850	
G. T. Galbraith, M.D.	3	January	1851	China.
T. W. Barrow	26	December	"	Jamaica.
J. Ewing	12	March	1852	Dublin.
W. H. Fairbairn, M.D.	16	April	"	London.
L. C. Stewart	11	June	"	East Indies.
W. Rutherford, M.D.	11	June	"	China.
H. F. Wilson, M.D.	16	July	"	Ceylon.
J. D. W. Bacot	3	December	"	Pembroke.
R. V. George, M.D.	4	February	1853	Canterbury.
W. F. Daniell, M.D.	11	March	"	China.
E. Menzies	26	July	"	Hong Kong.

Name.	*Date of Appointment.*	*Station.*
G. F. Bone, M.D.	21 October 1853	East Indies.
T. Parr	21 „ „	East Indies.
R. Lewins, M.D.	3 March 1854	China.
W. W. Weld	3 „ „	Malta.
T. M. Sunter, M.B.	28 „ „	Honduras.
V. Webb	28 „ „	
A. Crocker	28 „ „	Chatham.
G. W. Powell	28 „ „	Chatham.
J. P. Moline	15 August „	East Indies.
W. F. T. Ivey	15 „ „	Gibraltar.
H. Somers, M.D.	15 „ „	Chatham.
G. Saunders	20 October „	Cape of Good Hope.
D. S. E. Bain, M.D.	3 November „	West Indies.
O. S. Donnall	3 „ „	West Indies.
E. B. Tuson	10 „ „	Canada.
J. Dunlop, M.D.	8 December „	Chatham.
H. F. Smith, M.D.	12 January 1855	London.
E. W. Bawtree, M.D.	19 „ „	Corfu.
W. Poole	9 February „	East Indies.
V.C., A. D. Home	9 „ „	China.
D. Hanley, M.D.	16 „ „	Templemore.
R. Thornton	24 April „	Jamaica.
H. S. Sanders	24 „ „	Gravesend.
P. H. E. Cross	15 May „	Colchester.
J. Small	10 July „	Mauritius.
C. W. Poulton	20 „ „	Mil. Prison, Gosport.
E. M. Macpherson	10 August „	Cape of Good Hope.
W. R. Thompson, M.D.	14 September „	
W. W. Somerville, M.D.	8 January 1856	Cork.
H. V. Bindon	25 May „	
T. Ligertwood, M.B.	20 October „	East Indies.
J. Hendley	5 December „	Aberdeen.
C. H. Fasson	19 February 1857	Plymouth.
W. Lapsley	28 August „	East Indies.
H. C. Martin	11 September „	China.
B. Nicholson, M.D.	2 October „	China.
G. K. Hardie, M.D.	2 „ „	East Indies.
H. H. Jones, M.D.	2 „ „	East Indies.
D. F. Rennie, M.D.	2 „ „	
J. Irvine, M.D.	2 „ „	London.
R. MacGregor	2 „ „	East Indies.
J. Gibbons	3 November „	East Indies.
R. McNab, M.D.	26 January 1858	Glasgow.
R. B. Smyth, M.D.	26 „ „	Great Yarmouth.
D. Macqueen, M.D.	26 „ „	Colchester.
G. Peacocke, M.D.	26 „ „	East Indies.
G. E. Gains	26 „ „	East Indies.
J. E. Moffatt	26 „ „	East Indies.
J. Hoffmann, M.D.	25 June „	Chatham.
B. Tydd	16 July „	Buttevant.
G. Pain	30 „ „	China.
W. J. Ingham	24 August „	Curragh.
F. Holton, M.B.	24 „ „	East Indies.
F. W. Knox	24 September „	East Indies.
T. Blatherwick	31 December „	Canada.
J. K. Leet	31 „ „	Cape of Good Hope.
J. McG. Laing	31 „ „	East Indies.
W. A. Thomson, M.B.	31 „ „	
G. P. M. Woodward, M.D.	31 „ „	Chatham.
R. T. Buckle, M.D.	31 „ „	East Indies.
C. M. M. Miller, M.D.	31 „ „	Chatham.
F. Cogan	31 „ „	Ceylon.
P. McDermott, M.D.	31 „ „	East Indies.
J. L. Jameson	31 „ „	East Indies.
A. Bell	31 „ „	East Indies.
E. A. Brien	31 „ „	Gold Coast.
C. T. Abbott, M.B.	31 „ „	Sierra Leone.
T. G. Bone, M.D.	18 January 1859	Canada.

Name.	*Date of Appointment.*	*Station.*
J. Campbell, M.D.	25 February 1859	Corfu.
H. B. Franklyn, M.D.	11 March „	Chatham.
J. P. Cunningham, M.D.	11 „ „	Limerick.
T. G. FitzGerald	8 April „	London.
J. O'Nial	5 May „	East Indies.
D. R. Rennie	18 November „	China.
C. C. Rutherford	2 December „	China.
W. Skeen, M.D.	13 „ „	Gambia.
P. A. McDermott	16 „ „	

APOTHECARIES.

J. Schembri	14 October 1813	Corfu.
J. M'Intosh	1 September 1854	Cape of Good Hope.
F. Fernandez	20 February 1855	China.
J. Andrews	5 December 1856	Malta.

STAFF ASSISTANT-SURGEONS.

T. J. Tufnell	11 June 1841	Dublin.
D. O. Hoile, M.D.	14 October 1851	Stirling.
T. C. Brady	21 May 1852	Ceylon.
J. S. Chartres	11 June „	Parkhurst.
E. W. Skues, M.B.	11 „ „	
B. Lane	23 July „	London.
T. W. Fox, M.B.	23 „ „	Canada.
W. S. Whylock, M.D.	25 December „	East Indies.
J. J. Scott	21 January 1853	Cape of Good Hope.
R. Speedy	11 March „	Cape of Good Hope.
J. Ferguson	22 April „	Mauritius.
W. Snell	6 May „	China.
W. T. Harding	13 „ „	Corfu.
A. F. Turner	26 July „	Cape of Good Hope.
W. Stewart, M.D.	29 „ „	Parkhurst.
P. Davidson, M.D.	5 August „	Aberdeen.
F. L. FitzGerald	12 „ „	China.
W. P. Frazer	21 October „	Jamaica.
H. J. G. Atkinson	28 „ „	Dublin.
F. W. Moore	28 „ „	Eastbourne.
J. E. Young, M.D.	28 „ „	Nova Scotia.
G. Evans	24 March 1854	Exeter.
W. M. Webb	28 „ „	East Indies.
A. M. Tippetts	7 April „	West Indies.
D. Woods	7 „ „	Canada.
E. Y. Kellett	28 „ „	Corfu.
S. J. Bayfield	5 May „	Gibraltar.
T. S. Teevan	19 „ „	Gold Coast.
A. Bryson, M.D.	19 „ „	Jamaica.
R. W. Jackson	26 „ „	Dublin.
H. Titterton, M.D.	26 „ „	Tasmania.
L. O. Patterson	20 June „	East Indies.
E. H. Roberts	25 „ „	Canterbury.
J. Sparrow	30 „ „	East Indies.
D. O'Donovan, M.D.	14 July „	Plymouth.
A. Salter	14 „ „	Cape of Good Hope.
R. Wolseley	28 „ „	Pembroke.
F. Collins, M.D.	1 September „	Winchester.
W. T. Paliologus	1 „ „	Walmer.
J. V. Seddall, M.D.	13 October „	New Columbia.
T. Ball	3 November „	West Indies.
A. Semple	10 „ „	Nova Scotia.
W. F. Cullen	1 December „	Bermuda.
W. C. Roe	1 „ „	Birr.
R. G. Dickson, M.D.	14 „ „	Corfu.
H. L. Randell	5 January 1855	Jamaica.
J. Michael	10 „ „	Templemore.
W. Stockwell	31 „ „	Malta.

Name.	*Date of Appointment.*			*Station.*
T. Kennedy	30	March	1855	West Indies.
D. Stranaghan, M.D.	8	April	„	Canada.
C. M. Jessop	17	„	„	Hong Kong.
R. Turner	17	„	„	Malta.
A. C. Robertson	1	June	„	Limerick.
J. A. Turner	7	July	„	China.
T. B. P. O'Brien	29	September	„	Belfast.
N. Ffolliott	13	October	„	Portsmouth.
J. Goodwin	5	December	„	Hong Kong.
C. Martin	15	„	„	
A. Morphew	18	January	1856	Gambia.
W. O'Halloran	18	February	„	
W. Page	23	„	„	China.
F. Oakes	27	„	„	Gambia.
T. C. Beale	27	March	1857	Gambia.
W. Alexander	28	September	„	East Indies.
C. O'Callaghan	6	November	„	
A. W. Beveridge, M.D.	6	„	„	Chatham.
J. Jameson, M.D.	9	„	„	Canada.
G. Bouchier	9	„	„	Cork.
E. Brock	8	December	„	Cape of Good Hope.
J. Gorman	22	January	1858	Ceylon.
J. Mackay, M.D.	18	February	„	
J. Lander, M.D.	5	March	„	Gold Coast.
W. Curran	10	„	„	Pembroke.
J. H. Hunt	10	„	„	Canada.
W. M. Trestrail	16	April	„	
C. Gray	22	„	„	China.
J. Carlaw	22	„	„	China.
J. Thompson	22	„	„	Fermoy.
J. Niven	22	„	„	New Zealand.
J. Paxton, M.D.	22	„	„	Canada.
E. Hopkins	22	„	„	East Indies.
F. L. G. Gunn	23	„	„	Gold Coast.
F. E. Scanlan	30	„	„	Cape of Good Hope.
G. R. Woolhouse	7	May	„	East Indies.
A. Croker	7	„	„	East Indies.
W. A. Hope, M.B.	7	„	„	East Indies.
J. Bradshaw	7	„	„	
T. T. Gardner	7	„	„	East Indies.
A. Moffit	25	„	„	China.
R. J. W. Orton	25	„	„	China.
C. Rattray, M.D.	25	„	„	China.
J. Wiles	4	June	„	East Indies.
H. W. Devlin	22	„	„	China.
T. M. O'Brien	22	„	„	East Indies.
H. Scott	22	„	„	New Zealand.
W. P. P. Mackesy	1	July	„	East Indies.
J. Mackenzie, M.D.	5	August	„	China.
J. Walsh	5	„	„	Gibraltar.
J. Kinahan	5	„	„	China.
S. Argent	5	„	„	China.
G. Palatiano, M.D.	18	„	„	Corfu.
F. O'Conor	26	„	„	Chatham.
C. D. Campbell, M.D.	1	September	„	
A. J. Ferguson	1	„	„	Ceylon.
J. Speedy	1	„	„	Ceylon.
St. J. Killery	22	„	„	
L. A. White	22	„	„	Ceylon.
W. Holmes	22	„	„	Mauritius.
E. Hoile M.D.	22	„	„	China.
T. A. C. Macarthur	22	„	„	Hong Kong.
C. Longmore	22	„	„	China.
R. White	22	„	„	China.
T. Barnwell	22	„	„	China.
C. B. Mosse	8	October	„	Jamaica.
F. A. Turton	13	October	„	East Indies.
G. F. Adams	13	„	„	East Indies.

Name.	*Date of Appointment.*	*Station.*
C. F. Squire	13 October 1858	East Indies.
F. E. M'Farland	1 November „	East Indies.
T. Ramsay	1 „ „	East Indies.
W. K. Stewart, M.D.	1 „ „	East Indies.
J. J. M'Carthy, M.D.	16 „ „	China.
J. Martin	16 „ „	
J. W. Lougheed	16 „ „	East Indies.
G. Smith	22 „ „	East Indies.
R. A. Allen, M.D.	23 „ „	Ceylon.
T. Hession	1 December „	East Indies.
E. Wilkes	1 „ „	East Indies.
G. E. Gascoyen	1 „ „	East Indies.
A. Mackay	1 „ „	East Indies.
W. R. Kerans	14 „ „	China.
E. L. Low, M.B.	14 „ „	China.
T. Murtagh	14 „ „	China.
G. Park, M.B.	14 „ „	East Indies.
J. S. Duncan, M.D.	14 „ „	East Indies.
R. Henry	14 „ „	East Indies.
R. M. Gilchrist, M.D.	14 „ „	East Indies.
H. J. Bailey	12 January 1859	China.
H. Walker	12 „ „	East Indies.
W. Hensman	12 „ „	Cape of Good Hope.
A. Sanderson	12 „ „	Cape of Good Hope.
W. Armstrong	12 „ „	East Indies.
J. J. C. Rogers	12 „ „	Corfu.
J. S. Allanby, M.D.	1 February „	East Indies.
G. Calvert	1 „ „	Gambia.
T. Seward, M.D.	1 „ „	Cape of Good Hope.
J. Watson	1 „ „	China.
J. D. Sainter	1 March „	China.
J. Clarke, M.D.	1 „ „	East Indies.
W. Millar	1 „ „	East Indies.
K. J. Parr	1 „ „	Cork.
W. Orr	1 „ „	East Indies.
E. Parsonage, M.D.	1 „ „	East Indies.
C. A. Fraser	1 „ „	China.
H. S. E. Schroeder	1 „ „	Sierra Leone.
G. C. Gribbon, M.B.	20 April „	Templemore.
W. Ligertwood, M.D.	20 „ „	Shorncliffe.
G. Cardell	20 „ „	Portsmouth.
J. Land, M.D.	20 „ „	Templemore.
M. S. Grace, M.D.	20 „ „	Winchester.
C. E. Smith, M.D.	20 „ „	Great Yarmouth.
J. H. T. King	20 „ „	East Indies.
A. Jennings, M.D.	20 „ „	Shorncliffe.
C. W. Watling	20 „ „	Canterbury.
M. Tracy	20 „ „	Canterbury.
G. Simon, M.D.	20 „ „	Canterbury.
F. T. M'Carthy	20 „ „	Cork.
T. Heazle	20 „ „	Colchester.
R. Tate, M.D.	20 „ „	Great Yarmouth.
S. K. Ray	20 „ „	Colchester.
G. E. Tait	20 „ „	Winchester.
G. A. Davidge	20 „ „	Buttevant.
V. Maher	20 „ „	China.
W. Langston	20 „ „	Chatham.
A. E. Bartlet	20 „ „	Plymouth.
R. Storey	20 „ „	Chichester.
J. Adsetts	13 June „	Woolwich.
E. H. Lloyd, M.B.	13 „ „	Woolwich.
J. Y. Donaldson, M.D.	13 „ „	Great Yarmouth.
O. Codrington	13 „ „	Portsmouth.
E. Drew	13 „ „	Woolwich.
J. Adcock, M.D.	13 „ „	Colchester.
H. Y. Howison, M.D.	13 „ „	Chelsea Hospital.
G. F. Spry	13 „ „	Woolwich.
J. T. Milburn	13 „ „	Chatham.

Name.	*Date of Appointment.*	*Station.*
J. A. Illingworth	13 June 1859	Chatham.
R. A. P. Grant	13 „ „	Aberdeen.
A. H. Orpen	13 „ „	Chatham.
A. Thomson, M.D.	13 „ „	Chatham.
G. H. Dyer	13 „ „	Chatham.
J. A. B. Horton, M.D.	5 September „	Gold Coast.
W. B. Davies, M.D.	5 „ „	Gold Coast.
J. T. Tulloch, M.D.	11 October „	Colchester.
A. C. Gaye	11 „ „	Plymouth.
W. E. Alston, M.D.	11 „ „	Athlone.
J. S. Joyner	11 „ „	Athlone.
C. Henderson	11 „ „	Belfast.
JA. Scott	11 „ „	Belfast.
A. Royle	11 „ „	Colchester.
W. D. Smythe	11 „ „	Chatham.
T. Wood, M.D.	11 „ „	Chichester.
J. B. Jardine	11 „ „	Fermoy.
J. E. Stewart, M.D.	11 „ „	Queenstown.
H. C. Guinness	11 „ „	Chatham.
A. O. Cowan, M.D.	11 „ „	Limerick.
J. S. C. Collier	11 „ „	Chatham.
W. Creagh	15 „ „	Fermoy,

ACTING ASSISTANT-SURGEONS.

H. Rowe	10 September 1857		Yarmouth, Isle of Wight.
T. Callaway	17 November „		
T. Gross, M.D.	12 February 1858		Jersey.
J. M. Wills	16 March „		Devonport.
P. Lee	23 „ „		Portsmouth.
J. T. Mitchell	30 „ „		Walmer.
W. W. Coleman	30 „ „		Woolwich.
J. Benbow, M.D.	5 April „		Curragh.
G. C. Rose	5 „ „		Fermoy.
J. Craven	5 „ „		Limerick.
J. W. Crow	30 „ „		Buttevant.
M. L. Burrows	30 „ „		Great Yarmouth.

REGIMENTAL.

Regiment.	Name.	Rank.	Date of Appointment.	Station.
CAVALRY.				
1st Life Guards	J. Cockburn	Surg.-Major	1 Oct. 1858	Windsor.
do.	O. W. George, M.D.	Asst.-Surg.	6 June 1851	
2nd Life Guards	T. Tardrew	Surgeon	23 May 1851	Regent's Park.
do.	F. T. Buckland	Asst.-Surg.	15 Aug. 1854	
Rl. H. Guards	C. G. Logie, M.D.	Surgeon	26 Nov. 1852	Hyde Park.
do.	F. G. Kerin	Asst.-Surg.	18 Aug. 1848	
1st Drg. Guards	W. H. Jephson, M.D.	Surgeon	12 Jan. 1855	East Indies.
do.	W. A. Davidson, M.D.	Asst.-Surg.	28 Mar. 1854	
do.	E. L. M'Sheehy, M.D.	do.	27 May 1857	
2nd Drg. Guards	H. D. Massy, M.D.	Surgeon	28 Mar. 1854	Esst Indies.
do.	J. H. Robotham	Asst.-Surg.	23 April 1855	
do.	R. F. Andrews	do.	30 Sept. 1853	
3rd Drg. Guards	R. M. Allen	Surgeon	28 Mar. 1854	East Indies.
do.	C. J. White	Asst.-Surg.	28 Mar. 1854	
do.	St. J. Stanley	do.	24 Feb. 1854	
4th Drg. Guards	R. Cooper	Surgeon	18 Mar. 1853	Brighton.
do.	W. Macnamara	Asst.-Surg.	6 Oct. 1854	
5th Drg. Guards	W. J. Fyffe, M.D.	Surgeon	1 May 1855	Aldershot.
do.	W. Catteil	Asst.-Surg.	28 Mar. 1854	

Regiment.	Name.	Rank.	Date of Appointment.	Station.
6th Drg. Guards	D. S. Smith	Surgeon	28 Jan. 1859	East Indies.
do.	C. J. Davenport, M.D. ..	Asst.-Surg.	15 Aug. 1854	
do.	S. A. Lithgow	do.	3 Feb. 1855	
7th Drg. Guards	E. J. Franklyn, M.D. ..	Surgeon	15 May 1855	East Indies.
do.	O. Smith	Asst.-Surg.	4 Feb. 1853	
do.	E. M'Gill	do.	8 Jan. 1855	
1st Dragoons ..	A. Forteath, M.D. ..	Surgeon	28 Mar. 1854	Dublin.
do.	S. B. Gibb, M.D. ..	Asst.-Surg.	17 May 1855	
2nd Dragoons ..	A. P. Lockwood ..	Surgeon	21 Sept. 1852	Newbridge.
do.	T. Rudd, M.D. ..	Asst.-Surg.	1 Aug. 1857	
3rd Dragoons ..	W. O. Mackenzie, M.D. ..	Surg.-Major	4 Jan. 1859	Dublin.
do.	J. C. Agnis	Asst.-Surg.	11 Aug. 1854	
4th Dragoons ..	A. Alexander	Surg.-Major	1 Oct. 1858	Manchester.
do.	J. C. Campbell, M.D. ..	Asst.-Surg.	23 June 1854	
5th Dragoons ..	H. Huish, M.D.	Surgeon	15 Aug. 1854	Newbridge.
do.	J. Atkinson	Asst.-Surg.	10 Mar. 1858	
6th Dragoons ..	F. H. Baxter, M.D. ..	Surgeon	15 Aug. 1854	East Indies.
do.	O. Barnett	Asst.-Surg.	24 Nov. 1854	
do.	R. G. Burton, M.D. ..	do.	24 Feb. 1854	
7th Dragoons ..	H. Kendall, M.D. ..	Surgeon	6 Oct. 1854	East Indies.
do.	G. M. Slaughter ..	Asst.-Surg.	13 Dec. 1844	
do.	T. A. Thornhill, M.B. ..	do.	28 May, 1857	
8th Dragoons ..	J. H. Llewelyn	Surgeon	9 Feb. 1855	East Indies.
do.	H. Sherlock	Asst.-Surg.	15 Dec. 1854	
do.	R. R. Scott	do.	28 July 1854	
9th Dragoons ..	J. J. Clifford, M.D. ..	Surgeon	28 Aug. 1857	Exeter.
do.	S. Fuller	Asst.-Surg.	23 July 1855	
10th Dragoons	T. Fraser, M.D. ..	Surgeon	9 Mar. 1855	Hounslow.
do.	L. G. Hooper	Asst.-Surg.	28 April 1854	
11th Dragoons	J. B. St. C. Crosse ..	Surgeon.	16 June 1848	Birmingham.
do.	O. B. Miller	Asst.-Surg.	28 Mar. 1854	
12th Dragoons	G. A. Turnbull	Surgeon	28 Dec. 1855	East Indies.
do.	E. M. Wrench	Asst.-Surg.	3 Nov. 1854	
do.	S. Gibson, M.B. ..	do.	23 Nov. 1852	
13th Dragoons	R. C. Anderson, M.D. ..	Surgeon	18 May 1849	Piershill.
do.	L. Armstrong	Asst.-Surg.	7 April 1854	
14th Dragoons	W. Arden	Surgeon	25 July 1851	East Indies.
do.	R. C. Lofthouse, M.D. ..	Asst.-Surg.	14 July 1854	
do.	R. B. Forsyth-Brown ..	do.	8 Dec. 1857	
15th Dragoons	W. G. Watt	Surgeon	28 Mar. 1854	Dublin.
do.	C. H. Browne	Asst.-Surg.	1 Aug. 1857	
16th Dragoons	W. K. Park	Surgeon	6 Oct. 1854	York.
do.	A. K. Rickards	Asst.-Surg.	24 April 1855	
17th Dragoons	J. Kellie, M.D.	Surgeon	2 Oct. 1857	East Indies.
do.	Y. H. Johnson	Asst.-Surg.	20 Nov. 1855	
do.	G. C. Clery	do.	13 Oct. 1854	
18th Dragoons	E. S. Docker	Surgeon	14 Mar. 1851	Aldershot.
do.	M. Grant, M.D.	Asst.-Surg.	10 Mar. 1857	
Rl. Artillery.				
Horse Brigade	J. M. S. Fogo	Surgeon	13 April 1855	Woolwich.
do.	H. Clifford	Asst.-Surg.	15 July 1854	
do.	J. C. H. Wright, M.D. ..	do.	1 Jan. 1853	
do.	J. Wood	do.	10 Jan. 1855	
do.	T. Tarrant, M.D. ..	do.	16 June 1854	
do.	R. Webb	do.	15 Dec. 1854	
do.	J. A. M'Munn, M.D. ..	do.	13 Oct. 1853	
do	R. Lewer	do.	1 Aug. 1857	
do.	J. T. M. Symons, M.D. ..	do.	8 Dec. 1857	
do.	W. B. Wallis	do.	27 May 1853	
do.	J. B. Cockburn, M.D. ..	do.	3 Mar. 1854	

Regiment.	Name.	Rank.	Date of Appointment.	Station.
1st Brigade ..	M. Combe, M.D. ..	Surgeon	24 April 1855	Woolwich.
do.	J. M. Fiddes, M.B. ..	Asst.-Surg.	1 Nov. 1858	
do.	W. Graves	do.	22 Sept. 1858	
2nd Brigade ..	H. W. Voss	Surgeon	26 Jan. 1858	Dover.
do.	S. P. Woodfull	Asst.-Surg.	9 Feb. 1856	
3rd Brigade ..	T. Park	Surgeon	21 Dec. 1855	Plymouth.
do.	E. F. O'Leary	Asst.-Surg.	9 Feb. 1856	
4th Brigade ..	J. Duff, M.D.	Surgeon	8 Jan. 1856	Woolwich.
do.	H. Harrison	Asst.-Surg.	16 Nov. 1858	
do.	A. S. K. Prescott ..	do.	6 May 1858	
do.	W. Temple, M.B. ..	do.	1 Nov. 1858	
do.	W. T. Morgan, M.D. ..	do.	1 Feb. 1859	
do.	W. R. Stewart	do.	11 Aug. 1854	
do.	A. Richmond	do.	13 Oct. 1858	
5th Brigade ..	S. H. Fasson, M.D. ..	Surgeon	23 Mar. 1855	Gibraltar.
do.	S. H. Dickerson.. ..	Asst.-Surg.	23 Dec. 1854	
do.	W. Fletcher	do.	4 May 1855	
6th Brigade ..	W. Perry	Surgeon	20 July 1855	Malta.
do.	E. J. Hopwood	Asst.-Surg.	29 Jan. 1855	
do.	J. A. Marston, M.D. ..	do.	10 Nov. 1854	
7th Brigade ..	E. Gilborne	Surgeon	5 Nov. 1855	Montreal.
do.	C. W. Griffith	Asst.-Surg.	12 Jan. 1859	
do.	M. G. Jones	do.	19 Oct. 1857	
do.	H. C. Miles	do.	23 Dec. 1854	
8th Brigade ..	R. F. V. De Lisle ..	Surgeon	5 Nov. 1852	Portsmouth.
do	J. Robinson	Asst.-Surg.	22 Sept. 1858	
do.	B. Burland, M.B. ..	do.	1 Dec. 1858	
do.	F. R. Hogg, M.D. ..	do.	5 Aug. 1858	
do.	E. T. Palmer	do.	12 Jan. 1859	
do.	G. R. Tate, M.D. ..	do.	17 Mar. 1858	
9th Brigade ..	A. Rudge	Surgeon	2 Oct. 1857	Dublin.
do.	J. Bourke	Asst.-Surg.	25 May 1858	
do.	L. Carey	do.	13 Oct. 1858	
do.	G. A. Grant	do.	12 Jan. 1859	
do.	A. Lower	do.	1 Dec. 1858	
do.	E. Hardinge	do.	10 Mar. 1858	
10th Brigade ..	W. H. Mackintosh, M.D.	Surgeon	1 April 1854	Guernsey.
do.	J. S. Comyn	Asst.-Surg.	22 Jan. 1858	
do.	J. d'Altera	do.	22 April 1858	
11th Brigade ..	R. C. Elliot, C.B. ..	Surg.-Major	21 May 1855	Bengal.
do.	R. C. Crean	Asst.-Surg.	1 Sept. 1858	
do.	J. W. Rimmer	do.	2 April 1855	
do.	G. Sharp..	do.	13 April 1855	
do.	W. Haughton, M.B. ..	do.	28 April 1854	
do.	J. H. Finnemore ..	do.	23 June 1854	
do.	A. R. Smith	do.	21 Feb. 1855	
do.	F. H. Forshall	do.	3 Oct. 1855	
do.	W. Tanner	do.	9 Nov. 1857	
12th Brigade ..	E. S. Protheroe	Surgeon	16 Mar. 1855	Mauritius.
do.	J. F. Lougheed	Asst.-Surg.	15 Aug. 1854	
do.	A. Hawkins	do.	15 April 1854	
do.	W. J. Cumming, M.D ..	do.	9 Nov. 1857	
13th Brigade ..	W. A. Dassauville, M.D.	Surg.-Major	1 Oct. 1858	Bombay.
do.	A. J. L. Hepworth ..	Asst.-Surg.	26 Jan. 1855	
do.	G. D. Milne, M.D. ..	do.	15 Sept. 1857	
do.	J. H. Hearn	do.	13 Oct. 1854	
do.	A. W. P. Pinkerton, M.D.	do.	22 June 1858	
do.	W. Y. Jeeves	do.	7 April 1854	
do.	J. Barker	do.	15 July 1854	
do.	R. U. Cashman, M.D. ..	do.	18 May 1855	
14th Brigade ..	H. C. Walshe, M.D. ..	Surgeon	8 Dec. 1854	Bengal.
do.	S. H. Halahan, M.D. ..	Asst.-Surg.	4 May 1855	
do.	R. W. Clifton	do.	28 Sept. 1857	
do.	T. J. Orton	do.	17 Jan. 1855	

Regiment.	Name.	Rank.	Date of Appointment.	Station.
14th Brigade ..	H. F. Paterson, M.D. ..	Asst.-Surg.	19 Oct. 1857	
do.	R. A. Chapple	do.	28 April 1854	
do.	R. D. Burn, M.D. ..	do.	19 Oct. 1857	
do.	D. F. De Hodgson, M.D.	do.	28 Sept. 1857	
do.	A. D. Gulland	do.	23 June 1854	
do.	J. M. Taylor	do.	15 Sept. 1857	
Depôt Brigade	J. A. Davis	Surg.-Major	13 Oct. 1853	Woolwich.
do.	J. S. Litle, A.B. ..	do.	1 Oct. 1858	
do.	G. T. Ferris	do.	1 Oct. 1858	
do.	M. B. Gallwey	do.	1 Oct. 1858	
do.	J. Bent	do.	21 Dec. 1855	
do.	H. Briscoe, M.D. ..	Surgeon	13 April 1855	
do.	J. R. M. Lewis, M.D. ..	do.	7 Dec. 1855	
do.	W. G. N. Manley ..	Asst.-Surg.	20 Feb. 1855	
do.	S. Roch	do.	14 Dec. 1854	
do.	H. R. L. Veale, M.D. ..	do.	14 Aug. 1855	
MIL. TRAIN.				
1st Battalion ..	O'C. D'Arcey, M.D. ..	Surgeon	13 Jan. 1855	China.
2nd do. ..	A. M'Arthur, M.D. ..	do.	11 May 1855	Aldershot.
3rd do. ..	F. Reynolds	do.	8 Dec. 1854	Woolwich.
4th do. ..	W. Braybrooke	do.	2 Sept. 1853	Shorncliffe.
5th do. ..	A. M. Macbeth	do.	29 June 1855	Curragh.
6th do. ..	J. A. Woolfreyes, M.D.	do.	20 July 1855	Woolwich.
7th do. ..	D. P. Barry	do.	8 Dec. 1854	Aldershot.
INFANTRY.				
Gren. Gds. 1st B.	G. E. Blenkins	Surg.-Major	24 Jan. 1858	Wellington B. London.
do. do.	G. P. Girdwood.. ..	Asst.-Surg.	24 Nov. 1854	
do. do.	F. G. Hamilton	do.	28 April 1854	
do. 2nd Bat.	J. J. M. Wardrop ..	Batt. Surg.	2 Mar. 1855	Aldershot and Windsor.
do. do.	W. R. Lane	Asst.-Surg.	29 Dec. 1854	
do. do.	W. H. Pickford, M.B. ..	do.	19 Feb. 1858	
do. 3rd Bat.	C. R. Nicoll	Batt. Surg.	29 Dec. 1854	Dublin.
do. do.	H. T. H. Lawrence ..	Asst.-Surg.	24 Feb. 1854	
do. do.	C. C. Read	do.	13 May 1853	
Colds. Gds. 1st B.	J. Monro, M.D... ..	Surg. Major	20 Feb. 1853	Portman-street, London.
do. do.	C. V. Cay	Asst.-Surg.	12 June 1846	
do. do.	A. B. R. Myers	do.	26 Sept. 1859	
do. 2nd Bat.	J. Wyatt	Batt. Surg.	9 April 1857	Tower, London.
do. do.	J. W. Trotter	Asst. Surg.	26 May 1854	
do. do.	R. Farquharson, M.D. ..	do.	12 Jan. 1859	
S. Fusil. Gds. 1 B.	F. Robinson, M.D. ..	Batt. Surg.	20 Mar. 1857	St. George's B. London.
do. do.	F. B. Baker	Asst.-Surg.	3 Mar. 1854	
do. do.	G. Perry	do.	29 Jan. 1855	
do. 2nd Bat.	J. A. Bostock, M.D. ..	Surg.-Major	20 Mar. 1857	Wellington B. London.
do. do.	A. G. Elkington.. ..	Asst.-Surg.	11 Mar. 1853	
do. do.	H. Turner	do.	19 May 1854	
1st Foot, 1st Bat.	C. B. Hearn	Surgeon	16 Nov. 1849	East Indies.
do. do.	R. Atkinson	Asst.-Surg.	5 May 1854	
do. do.	J. W. Hulseberg ..	do.	14 Dec. 1854	
do. do.	M. L. White	do.	22 Sept. 1858	
do. 2nd Bat.	C. W. Woodroffe ..	Surgeon	26 Jan. 1858	Hong Kong.
do. do.	T. K. Birnie	Asst.-Surg.	7 Jan. 1853	
do. do.	A. J. Mackay, M.D. ..	do.	27 Oct. 1854	
do. do.	W. White	do.	22 June 1858	
2d Foot, 1st Bat.	H. C. Fox	Surgeon	17 June 1851	C. of G. Hope.

Regiment.	Name.	Rank.	Date of Appointment.	Station.
2nd Foot, 1st B.	H. J. Rose	Asst.-Surg.	6 Mar. 1855	
do. do.	S. H. Marshall	do.	7 May 1858	
do. do.	R. B. Carson, M.B.	do.	22 June 1858	
do. 2nd Bat.	D. J. Doherty	Surgeon	20 July 1855	Ionian Islands.
do. do.	J. Sinclair, M.D.	Asst.-Surg.	5 Aug. 1853	
do. do.	H. C. Peppin	do.	9 Nov. 1857	
3d Foot, 1st Bat.	J. Burke	Surgeon	22 Dec. 1848	East Indies.
do. do.	T. Teevan	Asst.-Surg.	30 June 1854	
do. do.	T. Dolan.	do.	1 Sept. 1854	
do. do.	J. H. Beath, M.D.	do.	15 Sept. 1857	
do. 2nd Bat.	F. O. Barker, M.D.	Surgeon	5 May 1854	Malta.
do. do.	H. M'Niece	Asst. Surg.	6 Nov. 1855	
do. do.	J. Wilson, M.B.	do.	5 Aug. 1858	
4th Foot, 1st Bat.	J. Gorringe, M.D.	Surgeon	29 June 1855	East Indies.
do. do.	J. Ekin, M.B.	Asst.-Surg.	7 April 1854	
do. do.	J. L. Erskine, M.D.	do.	1 Sept. 1854	
do. do.	E. B. Kearney	do.	22 Jan. 1858	
do. 2nd Bat.	H. Fisher	Surgeon	2 Oct. 1857	Corfu.
do. do.	E. Miller, M.D.	Asst.-Surg.	22 Jan. 1858	
do. do.	J. V. Lane	do.	13 Oct. 1858	
5th Foot, 1st Bat.	W. K. Swettenham, M.D.	Surgeon	14 Oct. 1851	
do. do.	T. R. Whitty	Asst.-Surg.	11 Nov. 1853	East Indies.
do. do.	C. H. Leet	do.	22 Jan. 1858	
do. do.	G. S. Cameron	do.	7 May 1858	
do. 2nd Bat.	F. Reid, M.D.	Surgeon	25 Sept. 1849	Mauritius.
do. do.	J. W. Gillespie, M.D.	Asst.-Surg.	22 Jan. 1858	
do. do.	P. F. Newland	do.	25 May 1858	
6th Foot, 1st Bat.	A. P. Cahill, M.D.	Surgeon	28 Aug. 1857	East Indies.
do. do.	A. R. Hudson, M.B.	Asst.-Surg.	26 May 1854	
do. do.	W. Hillman	do.	22 Jan. 1858	
do. do.	H. H. Maclean	do.	22 April 1858	
do. 2nd Bat.	G. Hyde, M.D.	Surgeon	1 May 1855	Gibraltar.
do. do.	B. C. Kerr	Asst.-Surg.	17 Nov. 1855	
do. do.	T. Ryan	do.	1 Sept. 1858	
7th Foot, 1st Bat.	T. Moorhead, M.D.	Surgeon	3 Nov. 1854	East Indies.
do. do.	*V.C.*, T. E. Hale, M.D.	Asst.-Surg.	14 Dec. 1854	
do. do.	C. Ricketts	do.	28 April 1854	
do. do.	T. Sheehy, M.D.	do.	26 May 1854	
do. 2nd Bat.	E. W. T. Mandeville	Surgeon	16 Feb. 1855	Gibraltar.
do. do.	M. Quinlan	Asst.-Surg.	8 Dec. 1857	
do. do.	E. A. Gibbon	do.	1 Sept. 1858	
8th Foot, 1st Bat.	F. C. Annesley	Surg.-Major	17 Sept. 1859	East Indies.
do. do.	W. H. Yates	Asst.-Surg.	24 Nov. 1854	
do. do.	T. J. Biddle	do.	15 Aug. 1854	
do. do.	R. W. Saunders	do.	22 Jan. 1858	
do. 2nd Bat.	J. Madden	Surgeon	2 Oct. 1857	Gibraltar.
do. do.	W. Jay	Asst.-Surg.	22 Jan. 1858	
do. do.	J. E. O'Loughlin	do.	5 Aug. 1858	
9th Foot, 1st Bat.	J. Carroll, M.B.	Surgeon	26 Jan. 1858	Shorncliffe.
do. do.	J. C. Ovens	Asst.-Surg.	16 Dec. 1853	
do. do.	J. C. Johnston	do.	3 Nov. 1854	
do. 2nd Bat.	W. Armstrong	Surgeon	26 Jan. 1858	Corfu.
do. do.	C. C. Piper	Asst.-Surg.	12 Sept. 1855	
do. do.	J. H. Jeffcoat	do.	5 Aug. 1858	
10th Foot, 1st B.	C. A. Gordon, M.D., C.B.	Surgeon	10 July 1846	Plymouth.
do. do.	J. Tulloch	Asst.-Surg.	7 June 1854	
do. do.	T. J. Tucker	do.	18 July 1855	
do. 2nd Bat.	F. Douglas, M.D.	Surgeon	2 Oct. 1857	C. of G. Hope.
do. do.	T. F. Langstaff	Asst.-Surg.	22 Jan. 1858	
do. do.	W. L. Baker	do.	22 June 1858	
11th Foot, 1st B.	N. Heffernan, M.B.	Surgeon	7 Nov. 1851	Aldershot.
do. do.	F. H. Macfadin	Asst.-Surg.	1 Dec. 1854	
do. do.	P. Divorty, M.B.	do.	18 Nov. 1853	
do. 2nd Bat.	W. T. Black	Surgeon	20 July 1855	Aldershot.

Regiment.	Name.	Rank.	Date of Appointment.	Station.
11th Foot, 2nd B.	A. Macintyre, M.D. ..	Asst.-Surg.	22 Jan. 1858	
do. do.	W. Everet	do.	16 Nov. 1858	
12th Foot, 1st B.	W. Dick, M.D.	Surg.-Major	1 Oct. 1858	Tasmania.
do. do.	G. B. F. Arden	Asst.-Surg.	9 June 1854	
do. do.	A. H. F. Lynch	do.	7 May 1858	
do. 2nd Bat.	D. C. Wodsworth ..	Surgeon	26 Jan. 1858	Aldershot.
do. do.	G. A. Hutton	Asst.-Surg.	23 June 1854	
do. do.	J. W. C. N. Murphy ..	do.	1 Mar. 1859	
13th Foot, 1st B.	J. Jackson	Surgeon	21 May 1852	East Indies.
do. do.	P. N. Jackson	Asst.-Surg.	28 April 1854	
do. do.	A. E. T. Longhurst ..	do.	27 Oct. 1854	
do. do.	C. J. Kirwan	do.	20 Mar. 1855	
do. 2nd Bat.	W. G. Trousdell, M.D. ..	Surgeon	13 Dec. 1853	C. of G. Hope.
do. do.	N. L. Gray	Asst.-Surg.	22 Jan. 1858	
do. do.	J. Stuart	do.	13 Oct. 1858	
14th Foot, 1st B.	G. S. King, M.D. ..	Surgeon	29 June 1855	Jamaica.
do. do.	T. M. Bleckley, M.B. ..	Asst.-Surg.	6 Jan. 1854	
do. do.	J. M. Hyde	do.	3 Nov. 1854	
do. 2nd Bat.	J. E. Carte, M.B. ..	Surgeon	18 Feb. 1853	Mullingar.
do. do.	T. Bennett	Asst.-Surg.	22 Jan. 1858	
do. do.	A. T. Carbery	do.	16 Nov. 1858	
15th Foot, 1st B.	T. R. Dyce	Surg-Major.	7 June 1859	Jersey.
do. do.	J. D. Healey	Asst.-Surg.	5 May 1855	
do. do.	E. Coffey	do.	22 Jan. 1858	
do. 2nd Bat.	U. W. Evans	Surgeon	8 Dec. 1854	Malta.
do. do.	J. Hinton	Asst.-Surg.	10 Mar. 1858	
do. do.	F. M. Chalk	do.	5 Aug. 1858	
16th Foot, 1st B.	W. G. Swan	Surgeon	21 July 1854	Aldershot.
do. do.	H. Ferguson	Asst.-Surg.	30 July 1855	
do. do.	J. R. Kehoe	do.	15 Sept. 1857	
do. 2nd Bat.	J. R. Ffennell	Surgeon	10 Feb. 1852	Clonmel.
do. do.	W. Sly	Asst.-Surg.	8 Dec. 1857	
do. do.	W. A. Gardiner	do.	22 Sept. 1858	
17th Foot, 1st B.	W. P. Ward	Surgeon	26 June 1855	Quebec.
do. do.	W. M. Gibant	Asst.-Surg.	3 Feb. 1854	
do. do.	A. Allan, M.D.	do.	12 Jan. 1859	
do. 2nd Bat.	J. E. Clutterbuck, M.D. ..	Surgeon	2 Oct. 1857	Aldershot.
do. do.	J. G. Cuppage	Asst.-Surg.	10 Mar. 1858	
do. do.	W. Chalmers	do.	14 Dec. 1858	
18th Foot, 1st B.	T. Crawford, M.D. ..	Surgeon	9 Feb. 1855	East Indies.
do. do.	F. Ffolliott	Asst.-Surg.	1 Aug. 1857	
do. do.	R. A. Hyde	do.	17 Aug. 1857	
do. do.	J. H. H. Tothill	do.	22 June 1858	
do. 2nd Bat.	G. W. Peake, M.D. ..	Surgeon	2 Oct. 1857	Aldershot.
do. do.	W. J. Spencer	Asst.-Surg.	22 April 1858	
do. do.	H. A. Coghlan	do.	1 Mar. 1859	
19th Foot, 1st B.	H. B. Hassard	Surgeon	26 Jan. 1858	East Indies.
do. do.	E. L. Hiffernan ..	Asst.-Surg.	16 June 1854	
do. do.	J. C. Smith	do.	1 Sept. 1854	
do. do.	C. E. Wikeley	do.	12 Jan. 1859	
do. 2nd Bat.	W. K. Chalmers, M.D. ..	Surgeon	12 Jan. 1855	Aldershot.
do. do.	D. Macpherson	Asst.-Surg.	10 Mar. 1858	
do. do.	T. Hewlett	do.	1 Feb. 1859	
20th Foot, 1st B.	E. Howard	Surgeon	24 Feb. 1854	East Indies.
do. do.	H. Kelsall	Asst.-Surg.	8 Sept. 1855	
do. do.	F. J. Short	do.	6 Aug. 1855	
do. do.	J. Munday	do.	4 Feb. 1856	
do. 2nd Bat.	T. Guy, M.D.	Surgeon	1 July 1853	Dublin.
do. do.	J. H. G. Meares	Asst.-Surg.	16 May 1855	
do. do.	H. Crump, M.D. ..	do.	1 Mar. 1859	
21st Foot, 1st B.	D. R. Mackinnon ..	Surgeon	28 Mar. 1854	Malta.
do. do.	A. J. Greer	Asst.-Surg.	23 July 1852	
do. do.	J. H. West, M.D. ..	do.	24 Mar. 1854	
do. 2nd Bat.	T. L. Nash, M.D. ..	Surgeon.	18 Jan. 1859	Aldershot.

Regiment.	Name.	Rank.	Date of Appointment.	Station.
21st Foot, 2nd B.	T. Walsh	Asst.-Surg.	25 May 1858	
do. do.	E. G. Ley, M.D. ..	do.	1 Mar. 1859	
22nd Foot, 1st B.	A. L. Adams, M.D. ..	Surgeon	25 Sept. 1855	Dublin.
do. do.	J. J. Adrien	Asst.-Surg.	10 Feb. 1854	
do. do.	W. H. Pollard	do.	7 April 1854	
do. 2nd Bat.	T. Carey	Surgeon	26 Jan. 1858	Malta.
do. do.	F. H. Preston	Asst.-Surg.	10 Mar. 1858	
do. do.	J. E. Clark	do.	1 Feb. 1859	
23rd Foot, 1st B.	P. S. Laing	Surgeon	6 Jan. 1854	East Indies.
do. do.	*V.C.*, H. T. Sylvester, M.D.	Asst.-Surg.	3 Mar. 1854	
do. do.	C. F. Morris	do.	2 Feb. 1855	
do. do.	J. N. Shipton	do.	23 Mar. 1855	
do. 2nd Bat.	A. S. Fogo, M.D. ..	Surgeon	31 Dec. 1858	Malta.
do. do.	R. W. Berkeley	Asst.-Surg.	22 April 1858	
do. do.	J. Grieg, M.B.	do.	14 Dec. 1858	
24th Foot, 1st B.	R. Gamble, M.D. ..	Surgeon	12 Mar. 1852	East Indies.
do. do.	C. C. Dempster	Asst.-Surg.	5 May 1854	
do. do.	R. Sutherland	do.	19 Oct. 1857	
do. do.	J. S. Johnston, M.D. ..	do.	7 May 1858	
do. 2nd Bat.	J. L. Holloway	Surgeon	2 Oct. 1857	Cork.
do. do.	J. Colahan, M.D. ..	Asst.-Surg.	25 May 1858	
do. do.	T. S. Hollingsworth ..	do.	3 Nov. 1854	
25th Foot, 1st B.	J. K. Carr, M.D. ..	Surgeon	11 May 1855	Gibraltar.
do. do.	C. Beaufoy	Asst.-Surg.	23 Dec. 1854	
do. do.	J. C. Rattray, M.D. ..	do.	8 Dec. 1858	
do. 2nd Bat.	C. R. Robinson	Surgeon	1 May 1855	Preston.
do. do.	J. G. Creasy	Asst.-Surg.	14 Dec. 1854	
do. do.	E. C. Markey	do.	1 Mar. 1859	
26th Foot ..	J. Coates, M.D.	Surgeon	25 Jan. 1856	Dublin.
do.	J. Mc Letchie	Asst.-Surg.	28 Sept. 1857	
do.	J. Davidge	do.	5 Aug, 1858	
27th Foot ..	M. S. Todd	Surgeon	28 Mar. 1854	East Indies.
do.	J. Mc L. Cameron, M.B.	Asst.-Surg.	26 May 1854	
do.	L. Kidd, M.B.	do.	26 May 1854	
do.	A. S. Russell, M.D. ..	do.	1 Aug. 1857	
28th Foot ..	B. W. Marlow, M.D. ..	Surgeon	24 Feb. 1854	East Indies.
do.	W. H. Brice	Asst.-Surg.	6 Jan. 1854	
do.	C. G. Irwin	do.	24 Feb. 1854	
do.	W. G. Don, M.D. ..	do.	22 Jan. 1858	
29th Foot ..	E. Moorhead, M.D. ..	Surgeon	25 May 1855	Preston.
do.	W. L. Farmer	Asst.-Surg.	24 April 1855	
do.	W. John	do.	9 Nov. 1857	
30th Foot ..	R. W. Read	Surgeon	28 Dec. 1855	Curragh.
do.	D. Milroy, M.D. ..	Asst.-Surg.	7 April 1854	
do.	W. Lindsay	do.	5 Aug. 1858	
31st Foot ..	T. J. Atkinson	Surgeon	26 Jan. 1858	East Indies.
do.	W. Grantt, M.B. ..	Asst.-Surg.	9 June 1854	
do.	B. T. Giraud, M.D. ..	do.	9 Nov. 1857	
do.	C. H. Giraud	do.	10 Mar. 1858	
32nd Foot ..	W. Boyd..	Surgeon	7 Sept. 1858	Dover.
do.	W. H. Harris	Asst.-Surg.	10 Mar. 1855	
do.	*V.C.*, W. Bradshaw ..	do.	15 Aug. 1854	
33rd Foot ..	W. Hanbury	Surgeon	3 Nov. 1854	East Indies.
do.	J. Ogilvy, M.B.	Asst.-Surg.	15 July 1853	
do.	T. Clark	do.	7 April 1854	
do.	A. R. Kilroy	do.	12 April 1855	
34th Foot ..	M. F. Manifold	Surgeon	8 Dec. 1854	East Indies.
do.	W. Haward	Asst.-Surg.	7 June 1854	
do.	F. Pennington	do.	22 April 1858	
do.	E. Masterson	do.	22 April 1858	
35th Foot ..	J. W. Chambers, M.D. ..	Surg.-Major.	4 Oct. 1859	East Indies.
do.	E. Thiselton	Asst.-Surg.	20 June 1854	
do.	R. T. G. Catton	do.	7 May 1858	
do.	J. Mahon	do.	22 June 1858	

Regiment.	Name.	Rank.	Date of Appointment.	Station.
36th Foot ..	J. Jopp, M.D... ..	Surg.-Major.	22 Feb. 1859	Plymouth.
do.	J. R. Tobin	Asst.-Surg.	21 Oct. 1853	
do.	S. M. Webb, M.D. ..	do.	19 May 1854	
37th Foot ..	J. W. Fleming	Surgeon.	2 Oct. 1857	East Indies.
do.	W. Ramsay, M.D. ..	Asst.-Surg.	15 Dec. 1854	
do.	W. S. Chapman ..	do.	15 Sept. 1857	
do.	J. Hoysted	do.	10 Mar. 1858	
38th Foot ..	T. F. Wall	Surgeon.	12 Jan. 1855	East Indies.
do.	D. W. Lawlor	Asst.-Surg.	10 June 1853	
do.	J. H. Lewis	do.	24 Mar. 1854	
do.	T. Wright	do.	21 April 1854	
39th Foot ..	G. T. Woodman, M.D...	Surgeon.	7 April 1854	Bermuda.
do.	J. H. Ross, M.B. ..	Asst.-Surg.	16 Dec. 1853	
do.	R. Lindsay, M.B. ..	do.	14 Dec. 1858	
40th Foot ..	H. F. Robertson ..	Surgeon.	2 Oct. 1857	N. S. Wales.
do.	T. Mines	Asst.-Surg.	1 Dec. 1854	
do.	B. Stiles	do.	14 April 1855	
41st Foot ..	J. Leitch, M.D.	Surgeon.	1 May 1855	Jamaica.
do.	F. T. Abbott	Asst.-Surg.	7 April 1854	
do.	G. L. Hinde	do.	15 May 1855	
42nd Foot ..	J. S. Furlong, M.D. ..	Surgeon.	9 Feb. 1855	East Indies.
do.	A. Maclean	Asst.-Surg.	7 April 1854	
do.	A. Hooper	do.	16 June 1854	
do.	W. A. Mackinnon ..	do.	23 Oct. 1857	
43rd Foot ..	A. Barclay, M.D. ..	Surgeon.	13 April 1852	East Indies.
do.	C. D. Madden, M.D. ..	Asst.-Surg.	14 Dec. 1854	
do.	J. J. Henry	do.	18 Jan. 1856	
do.	J. Good	do.	3 Oct. 1857	
44th Foot ..	J. Mee	Surgeon.	5 May 1854	East Indies.
do.	J. B. Baker	Asst.-Surg.	28 May 1857	
do.	C. J. Kinahan	do.	27 May 1857	
do.	E. G. MacDowell ..	do.	6 Nov. 1855	
45th Foot ..	T. C. O'Leary, M.B. ..	Surgeon.	9 Feb. 1855	Bradford.
do.	A. F. Bartley	Asst.-Surg.	14 Jan. 1853	
do.	J. A. Hanbury, M.B. ..	do.	30 Sept. 1853	
46th Foot ..	E. Touch, M.D.	Surgeon.	2 Oct. 1857	East Indies.
do.	J. Meane	Asst.-Surg.	24 Dec. 1852	
do.	J. G. Faught	do.	5 Jan. 1855	
do.	W. Venour	do.	22 Sept. 1858	
47th Foot ..	W. Singleton, M.D. ..	Surgeon.	2 Oct. 1857	Shorncliffe.
do.	W. A. White, M.D. ..	Asst.-Surg.	18 Oct. 1853	
do.	H. Grange	do.	1 Sept. 1854	
48th Foot ..	G. A. F. Shelton, M.B ..	Surgeon.	5 May 1854	East Indies.
do.	J. V. de Boissiere ..	Asst.-Surg.	12 June 1855	
do.	J. G. Grant	do.	19 Oct. 1857	
do.	W. H. Leslie, M.B. ..	do.	7 May 1855	
49th Foot ..	J. H. Bews	Surgeon.	1 May 1855	West Indies.
do.	J. Hannan	Asst.-Surg.	7 April 1854	
do.	W. M. Calder	do.	26 May 1854	
50th Foot ..	J. Fraser, M.D.	Surgeon.	25 Sept. 1855	Ceylon.
do.	G. F. Davis	Asst.-Surg.	7 April 1854	
do.	J. Johnston, M.D. ..	do.	27 Oct. 1854	
51st Foot ..	A. Smith, M.D. ..	Surgeon.	12 Jan. 1855	East Indies.
do.	G. T. Bourke	Asst.-Surg.	8 April 1855	
do.	J. Folliott	do.	7 May 1855	
do.	G. S. Burnside	do.	1 Aug. 1857	
52nd Foot ..	J. C. Haverty	Surgeon.	29 June 1855	East Indies.
do.	C. A. Mines, M.D. ..	Asst.-Surg.	14 Mar. 1855	
do.	H. A. Gogarty	do.	29 Aug. 1855	
do.	A. T. MacGowan ..	do.	15 Sept. 1857	
53rd Foot ..	J. S. Grant, M.D. ..	Surgeon.	29 Aug. 1857	East Indies.
do.	R. Hungerford	Asst.-Surg.	26 May 1854	
do.	R. H. Beale	do.	22 Feb. 1855	
do.	W. Ashton, M.B. ..	do.	15 Sept. 1857	

Regiment.	Name.	Rank.	Date of Appointment.	Station
54th Foot ..	W. M. Dowding.. ..	Surgeon	19 May 1854	East Indies.
do.	G. Youell	Asst.-Surg.	26 May 1854	
do.	A. Reid	do.	26 May 1854	
do.	C. B. Mathew	do.	9 Nov. 1857	
55th Foot ..	E. H. Blake, M.D. ..	Surgeon	7 Jan. 1853	Curragh.
do.	W. J. Rendell	Asst.-Surg.	26 May 1854	
do.	G. H. Finlay	do.	6 Oct. 1854	
56th Foot ..	W. Deeble	Surgeon	12 Jan. 1855	East Indies.
do.	D. C. Taylor, M.D. ..	Asst.-Surg.	26 May 1854	
do.	J. Parr	do.	28 May 1857	
do.	W. C. Boyd	do.	22 Jan. 1858	
57th Foot ..	W. MacAndrew, M.D...	Surgeon	23 Mar. 1855	East Indies.
do.	M. J. Griffin	Asst.-Surg.	22 Sept. 1854	
do.	W. Ferguson	do.	22 Sept. 1854	
do.	J. Davis	do.	10 Mar. 1858	
58th Foot ..	H. Downes, M.D. ..	Surg.-Major.	7 Sept. 1855	Aldershot.
do.	R. J. Worthington ..	Asst.-Surg.	26 May 1854	
do.	W. Barry	do.	25 Jan. 1856	
59th Foot ..	R. McWharrie, M.D. ..	Surgeon	4 Nov. 1853	C. of G. Hope.
do.	W. Crisp	Asst.-Surg.	5 Aug. 1858	
do.	W. B. Ramsbotham, M.B.	do.	10 Mar. 1858	
60th Foot, 1st B.	E. W. Young, M.D. ..	Surgeon	8 Dec. 1854	East Indies.
do. do.	E. J. Hatchell	Asst.-Surg.	15 Jan. 1856	
do. do.	F. W. Wade	do.	15 Sept. 1857	
do. do.	W. S. Oliver, M.D. ..	do.	15 Sept. 1857	
do. 2nd Bat.	H. J. Schooles, M.D. ..	Surg.-Major.	22 July 1859	East Indies.
do. do.	G. Young	Asst.-Surg.	5 May 1854	
do. do.	R. O. Hayden	do.	15 Sept. 1857	
do. do.	J. Doran, M.D.	do.	9 Nov. 1857	
do. 3rd Bat.	G. W. P. Sparrow ..	Surgeon	6 July 1855	East Indies.
do. do.	T. J. Murphy	Asst.-Surg.	28 April 1854	
do. do.	J. Macartney	do.	6 Oct. 1854	
do. do.	Seth Sam..	do.	9 Nov. 1857	
do. 4th Bat.	J. Crerar..	Surgeon	6 April 1855	Waterford.
do. do.	J. A. Lamb	Asst.-Surg.	22 June 1858	
do. do.	A. C. McTavish	do.	12 Jan. 1859	
61st Foot ..	H. T. Reade	Surgeon	3 Nov. 1857	Mauritius.
do.	A. Hoyte..	Asst.-Surg.	27 Mar. 1855	
do.	C. Mackinnon	do.	28 Sept. 1857	
62nd Foot ..	F. W. Tupper	Surgeon	26 Dec. 1851	Nova Scotia.
do.	S. Alder	Asst.-Surg.	3 Nov. 1854	
do.	J. P. Street, M.D. ..	do.	9 June 1854	
63rd Foot ..	H. Chrisp, M.B... ..	Surgeon	22 June 1855	Nova Scotia.
do.	W. W. Mills	Asst.-Surg.	28 Mar. 1854	
do.	F. Odell	do.	28 July 1854	
64th Foot ..	J. G. Inglis, M.D., C.B.	Surg.-Major.	29 Mar. 1859	East Indies.
do.	E. L. Lundy	Asst.-Surg.	7 April 1854	
do.	G. P. Wall	do.	19 Oct. 1857	
do.	C. E. Le Febure.. ..	do.	30 July 1855	
65th Foot ..	T. E. White, M.D. ..	Surgeon	2 Oct. 1857	New Zealand.
do.	A. Neill	Asst.-Surg.	15 Sept. 1857	
do.	E. McShane	do.	15 Sept. 1857	
66th Foot ..	W. S. Murray, M.B. ..	Surgeon	26 Jan. 1858	East Indies.
do.	W. Hemphill, M.D. ..	Asst.-Surg.	14 July 1854	
do.	J. McCrevey, M.D. ..	do.	22 Jan. 1858	
do.	G. A. Moorhead.. ..	do.	22 July 1858	
67th Foot ..	J. Lamprey, M.B. ..	Surgeon	3 Nov. 1857	China.
do.	A. C. Ross, M.D. ..	Asst.-Surg.	1 July 1853	
do.	R. Heard, M.D... ..	do.	15 Sept. 1857	
do.	J. G. S. Mathison ..	do.	5 Aug. 1858	
68th Foot ..	T. Best	Surgeon	13 April 1852	East Indies.
do.	A. P. M. Corbett, M.D.	Asst.-Surg.	2 Nov. 1854	
do.	C. Williams	do.	5 Jan. 1855	
	A. O. Applin	do.	3 Oct. 1857	

Regiment.	Name.	Rank.	Date of Appointment.	Station.
69th Foot ..	H. G. Gordon, M.D. ..	Surgeon	22 April 1853	East Indies.
do.	J. R. Crawford	Asst.-Surg.	2 April 1855	„
do.	J. H. Whittaker.. ..	do.	3 Oct. 1857	„
do.	F. Madden	do.	19 Oct. 1857	„
70th Foot ..	G. C. Meikleham, M.D...	Surgeon	28 Mar. 1854	East Indies.
do.	H. J. Rogers	Asst.-Surg.	16 June 1854	
do.	J. F. Deakin, M.D. ..	do.	28 July 1855	
do.	J. Watts	do.	5 April 1855	
71st Foot ..	W. Simpson, M.D. ..	Surgeon	8 Dec. 1854	East Indies.
do.	W. Leach	Asst.-Surg.	24 Nov. 1854	
do.	E. Wilson	do.	19 May 1855	
do.	J. Warren	do.	9 Nov. 1857	
72nd Foot ..	W. C. Seaman, M.D. ..	Surgeon	16 May 1851	East Indies.
do.	T. W. Rutter, M.D. ..	Asst.-Surg.	9 June 1854	
do.	G. McG. Carolan ..	do.	23 Dec. 1854	
do.	M. J. Jones	do.	15 Feb. 1855	
73rd Foot ..	E. Booth	Surgeon	13 Feb. 1852	East Indies.
do.	R. T. Scott	Asst.-Surg.	8 Dec. 1857	
do.	J. Anderson, M.B. ..	do.	10 Mar. 1858	
do.	J. McKinnel, M.D. ..	do.	22 April 1858	
74th Foot ..	J. Macbeth, M.D. ..	Surgeon	12 Aug. 1853	East Indies.
do.	W. R. Birkitt	Asst.-Surg.	17 April 1855	
do.	A. Chester	do.	1 Aug. 1857	
do.	R. Gillespie, M.D. ..	do.	1 Sept. 1858	
75th Foot ..	R. Dominichetti, M.D. ..	Surgeon	10 June 1857	East Indies.
do.	H. Reid, M.D.	Asst.-Surg.	8 Dec. 1857	
do.	C. W. Semple	do.	22 April 1858	
do.	R. Woods	do.	13 Oct. 1858	
76th Foot ..	R. T. Scott	Surg.-Major	1 Oct. 1858	Dublin.
do.	D. A. C. Fraser, M.D. ..	Asst.-Surg.	28 Oct. 1853	
do.	J. Macartney	do.	9 June 1854	
77th Foot ..	T. Rhys	Surgeon	20 July 1855	East Indies.
do.	A. Humfrey	Asst.-Surg.	7 April 1854	
do.	G. C. Hyde	do.	17 Jan. 1855	
do.	T. N. Hoysted	do.	28 Sept. 1855	
78th Foot ..	J. Jee, C.B. V.C. ..	Surgeon	23 June 1854	Fort George.
do.	*V.C.*, V. M. McMaster ..	Asst.-Surg.	27 Mar. 1855	
do.	S. S. Skipton, M.D. ..	do.	9 June 1854	
79th Foot ..	T. G. Scot, M.D. ..	Surgeon.	18 Feb. 1853	East Indies.
do.	A. K. Drysdale	Asst.-Surg.	24 Mar. 1854	
do.	P. Kilgour	do.	17 Jan. 1855	
do.	G. S. Davie, M.D. ..	do.	1 Nov. 1858	
80th Foot ..	J. A. W. Thompson, M.D.	Surgeon	26 Feb. 1856	East Indies.
do.	P. Frank, M.D.	Asst.-Surg.	14 Dec. 1854	
do.	W. Jackson	do.	9 Nov. 1857	
do.	J. Inkson, M.D... ..	do.	19 Oct. 1857	
81st Foot ..	G. Auchinleck, M.D. ..	Surgeon	2 Oct. 1857	East Indies.
do.	H. Bicknell	Asst.-Surg.	16 May 1855	
do.	W. H. Corbett, M.D. ..	do.	15 Dec. 1854	
do.	W. J. Mullan	do.	15 Sept. 1857	
82nd Foot ..	H. D. Fowler	Surgeon	20 July 1855	East Indies.
do.	R. W. Carter	Asst.-Surg.	28 July 1854	
do.	W. H. Muschamp ..	do.	23 Jan. 1855	
do.	R. Spence	do.	24 Mar. 1858	
83rd Foot ..	R. Browne	Surgeon	14 July 1856	East Indies.
do.	W. Sharpe	Asst.-Surg.	3 Feb. 1855	
do.	T. R. Mould	do.	31 May 1857	
do.	E. O'Connell	do.	22 Sept. 1858	
84th Foot ..	J. McG. Grant, M.D. ..	Surgeon	29 Nov. 1850	Sheffield.
do.	H. P. Gregory	Asst.-Surg.	19 Oct. 1857	
do.	W. H. Jenkins	do.	24 Sept. 1855	
85th Foot ..	J. W. Johnston, M.D. ..	Surgeon	29 June 1855	C. of G. Hope.
do.	H. C. Herbert	Asst.-Surg.	15 Sept. 1857	
do.	N. Norris..	do.	2 April 1855	

Regiment.	Name.	Rank.	Date of Appointment.	Station.
86th Foot ..	J. Sawyers, M.D. ..	Surgeon	26 Jan. 1858	Portsmouth.
do.	T. S. Barry	Asst.-Surg.	22 Feb. 1855	
do.	E. C. Ryall	do.	22 Sept. 1854	
87th Foot ..	R. G. D. Banon	Surgeon	1 July 1853	East Indies.
do.	D. C. McFall	Asst.-Surg.	15 Sept. 1857	
do.	P. B. Smith, M.D. ..	do.	15 Sept. 1857	
do.	J. Collins, M.D. ..	do.	24 Nov. 1858	
88th Foot ..	A. H. Fraser	Surgeon	26 Jan. 1858	East Indies.
do.	T. R. Williams, M.B. ..	Asst.-Surg.	24 Mar. 1854	
do.	R. W. Meade	do.	1 Sept. 1854	
do.	J. C. Knipe	do.	14 Mar. 1855	
89th Foot ..	R. Gilborne	Surgeon	8 Dec. 1854	East Indies.
do.	J. Bonnyman, M.B. ..	Asst.-Surg.	13 Dec. 1855	
do.	W. H. Price	do.	26 May 1854	
do.	T. Walsh..	do.	13 Oct. 1858	
90th Foot ..	P. J. Clarke	Surgeon	11 May 1855	East Indies.
do.	E. J. Crane	Asst.-Surg.	18 Aug. 1857	
do.	G. B. Popplewell ..	do.	9 June 1854	
do.	C. G. Lumsden	do.	28 May 1857	
91st Foot ..	M. W. Murphy	Surgeon	3 Mar. 1854	East Indies.
do.	R. Watson	Asst.-Surg.	26 May 1854	
do.	H. M. Macbeth	do.	22 June 1858	
do.	J. McL. Marshall ..	do.	1 Sept. 1858	
92nd Foot ..	T. B. Reid	Surgeon	5 Oct. 1858	East Indies.
do.	S. B. Roe, M.B. ..	Asst.-Surg.	4 Aug. 1855	
do.	D. S. Skinner	do.	28 Sept. 1857	
do.	J. Landale, M.D. ..	do.	15 Sept. 1857	
93rd Foot ..	W. Munro, M.D. ..	Surgeon	5 May 1854	East Indies.
do.	W. Sinclair	Asst.-Surg.	2 Sept. 1853	
do.	R. Menzies	do.	24 Feb. 1854	
do.	J. N. Bell, M.D. ..	do.	1 April 1853	
94th Foot ..	A. A. Stoney	Surgeon	11 May 1855	East Indies.
do.	E. McGrath	Asst.-Surg.	1 Aug. 1857	
do.	J. G. Leask, M.B. ..	do.	28 Aug. 1855	
do.	J. Wallace	do.	2 June 1857	
95th Foot ..	H. M. Webb, M.B. ..	Surgeon	8 Dec. 1854	East Indies.
do.	J. Clarke..	Asst.-Surg.	13 Dec. 1853	
do.	R. A. Elliott	do.	30 May 1857	
do.	W. Sharpe	do.	6 July 1855	
96th Foot ..	B. Swift, M.D.	Surgeon	13 Jan. 1854	Manchester.
do.	H. Mitchell	Asst.-Surg.	21 July 1854	
do.	J. J. Mulock	do.	5 May 1854	
97th Foot ..	A. Macrae, M.D. ..	Surgeon	26 Jan. 1858	East Indies.
do.	J. H. Porter	Asst.-Surg.	17 June 1853	
do.	E. M. Sinclair, M.D. ..	do.	28 Mar. 1854	
do.	T. Sharkey	do.	1 Aug. 1857	
98th Foot ..	N. H. Stewart, M.D. ..	Surgeon	22 June 1855	East Indies.
do.	J. McN. Beatty	Asst.-Surg.	14 Dec. 1854	
do.	W. Collis..	do.	14 Sept. 1855	
do.	S. Archer	do.	5 Aug. 1858	
99th Foot ..	R. C. Todd	Surgeon.	3 Nov. 1857	East Indies.
do.	G. Whitla	Asst.-Surg.	15 Sept. 1857	
do.	J. W. G. Allen	do.	12 Nov. 1857	
do.	S. H. Macartney, M.D. ..	do.	5 Aug. 1858	
100th Foot ..	W. Barrett, M.B. ..	Surgeon	28 Mar. 1854	Gibraltar.
do.	T. Liddard	Asst.-Surg.	3 Oct. 1857	
do.	D. Murray, M.D. ..	do.	19 Oct. 1857	
Rifle Brig. 1 Bat.	R. Bowen	Surgeon	26 Dec. 1851	Portsmouth.
do. do.	J. J. P. Williams ..	Asst.-Surg.	14 July 1854	
do. do.	F.S.B.F.deChaumont, M.D.	do.	28 April 1854	
do. 2nd Bat.	H. M. Fraser, M.D. ..	Surgeon	2 Oct. 1857	East Indies.
do. do.	J. B. C. Reade	Asst.-Surg.	24 Mar. 1854	
do. do.	A. F. Bradshaw.. ..	do.	27 May 1857	
do. do.	D. R. Pearson, M.D. ..	do.	12 Jan. 1859	

Regiment.	Name.	Rank.	Date of Appointment.	Station
Rifle Brig. 3rd B.	J. T. La Presle ..	Surgeon	2 Oct. 1857	East Indies.
do. do.	A. Guthrie, M.D. ..	Asst.-Surg.	28 April 1854	
do. do.	J. Storey	do.	7 Dec. 1855	
do. do.	D. Cullen, M.D... ..	do.	1 Sept. 1854	
do. 4th Bat.	J. E. Scott, M.D. ..	Surgeon	9 Feb. 1855	Malta.
do. do	G. Baly	Asst.-Surg.	4 April 1855	
do. do.	C. Seward	do.	22 April 1858	
1st W. I. Regt.	J. Davys	Surgeon	4 Sept. 1857	Bahamas.
do.	F. M. Skues	Asst.-Surg.	28 Feb. 1855	
do.	J. Kelly	do.	17 July 1855	
do.	P. B. Kearney	do.	1 Nov. 1858	
2nd W. I. Regt.	R. E. Fitzgibbon ..	Surgeon	22 July 1856	Jamaica.
do.	C. Bagot, M.B. ..	Asst.-Surg.	15 Sept. 1857	
do.	C. F. S. Macauley ..	do.	1 Mar. 1859	
do.	G. H. Harris	do.	22 June 1858	
3rd W. I. Regt.	D. W. Eaton	Surgeon	11 May 1855	West Indies.
do.	J. G. Richardson ..	Asst.-Surg.	10 Mar. 1858	
do.	H. D. Massy	do.	10 Mar. 1858	
do.	W. B. Carbery	do.	5 Aug. 1858	
Ceylon Rifles ..	H. L. Cowen	Surgeon	5 May 1854	Ceylon.
do.	J. J. Thompson	Asst.-Surg.	14 July 1854	
do.	E. G. Noott	do.	10 Feb. 1854	
Cape Mounted Rifles ..	A. G. Montgomery ..	Surgeon	2 Oct. 1857	C. of G. Hope.
do.	E. L'Estrange, M.D. ..	Asst.-Surg.	15 Sept. 1857	
do.	H. Knaggs	do.	22 April 1858	
Royal Canadian Rifles ..	J. Rambaut, M.D. ..	Surgeon	20 July 1855	Canada.
do.	R. W. Meadows.. ..	Asst.-Surg.	26 May 1854	
St. Helena Regt.	J. Mullins	Surgeon	6 Oct. 1854	St. Helena.
do.	J. Jardine, M.D. ..	Asst.-Surg.	15 Dec. 1854	
Ryl. Newfoundland Corps ..	W. M. Skues, M.B. ..	Asst.-Surg.	29 July 1853	Newfoundland.
Royal Malta Fencibles ..	L. Bernard, M.D. ..	Surgeon	9 May 1849	Malta.
do.	C. Ellul, M.D.	Asst.-Surg.	9 Aug. 1849	
Depôt Battalions.				
1st Depôt Bat.	A. Maclean, M.D. ..	Surg.-Major.	1 Oct. 1853	Chatham.
5th do. do.	J. T. O. Johnston, M.D.	do.	1 Oct. 1858	Parkhurst.
21st do. do.	A. Gibb, M.D.	Surgeon	11 Sept. 1849	Chichester.

CHANGES DURING THE YEAR 1859.

No. of Medical Officers on Full-Pay on 1st January, 1859		1,063
Entries of Assistant-Surgeons in 1859		90
Deaths of Medical Officers in 1856, viz.:—Surgeons	8	
Assistant-Surgeons	12	
	—	20
Retirements on Half-Pay in 1859, viz.:—		
Inspectors-General, under Article 10 of Warrant of 1st October, 1858	2	
Deputy Inspectors-General { Under Articles 10 and 11 of do. ..	1	
Deputy Inspectors-General { Under Article 12 of do. ..	1	
Surgeons-Major .. .. { Under Article 10 of do. ..	2	
Surgeons-Major .. .. { Under Articles 10 and 11 of do. ..	3	
Surgeons-Major .. .. { Under Article 12 of do. ..	1	
Surgeons—Temporary Half-Pay from ill-health	3	
Assistant-Surgeons—Temporary Half-Pay from ill-health	1	
	—	14
Resignations of Medical Officers in 1859, viz.:—Assistant-Surgeons		6
Dismissals of Medical Officers in 1859, viz.:—Assistant-Surgeons		3
No. of Medical Officers on Full-Pay on 31st December, 1859		1,075

APPENDIX TO MEDICAL REPORT FOR 1859.

List of Articles fitted and Works performed on board the Steam-ship "Melbourne," Regular Transport, at Deptford, between the 8th of December, 1859, and the 6th of January, 1860. Per Contract, dated 20th June, 1857, and Letter of Comptroller of Transport Service, of 29th November, 1859.

No. of Articles.	Species.	Quantity.	Rate.	Value.
			£ s. d.	£ s. d.
S. S.	Sleeping berths, in one tier—	persons	per person	
1	1 each, 6 × 2·3, containing 1 in each ..	1	0 11 8	0 11 8
	Sleeping berths, in two tiers—			
5	2, each 6 × 2·3, containing 1 in each ..	2	0 9 4	0 18 8
		No.	each	
19	Corner washstands, with 2 sides	1	0 5 0	0 5 0
20	Door or lid to ditto	1	0 1 11	0 1 11
22	Step ladders	3	0 10 9	1 12 3
		feet	per foot	
27	Benches in midships	282	0 0 6	7 1 0
29	Mess, tables, fixed midships	468·6	0 0 6¾	13 3 6¼
		No.	each	
34	Hammock-hooks	1,086	0 0 4	18 2 0
		ft. in.	per foot	
38	Screen battens	14·6	0 0 2¼	0 2 8½
		No.	each	
39	Knapsack hooks	950	0 0 1¼	4 18 11½
		feet	per foot	
45	Bulkhead, wrought	366	0 0 4	6 2 0
		muskets	per musket	
71	Arm racks	216	0 0 3½	3 3 0
		No.	each	
74	Upper deck privies, double..	6	7 5 6	43 13 0
80	Urinals, lined with lead	1	1 15 6	1 15 6
81	Air tubes, fitted	26	0 6 6	8 9 0
87	Air funnels, fitted	4	0 13 0	2 12 0
91	Stout trunks to air tubes	6	1 0 0	6 0 0
		letters	per letter	
94	Writing	267	0 0 0½	0 11 1½
		feet	per foot	
96	Grating bulkhead	238	0 0 4½	4 9 3
		No.	each	
97	Doors fitted in grating bulkhead	2	0 4 0	0 8 0
		feet	per foot	
101	Guard battens and stanchions to hatchway	282	0 0 4	4 14 0
		No.	each	
108	Iron screw-bolts to air tubes	104	0 0 8	3 9 4
	Sleeping berths in hospital, in one tier—	persons	per person	
112	120, each 6 × 2·3, containing 1 in each ..	120	0 17 6	105 0 0
	Sleeping berths in hospital, in two tiers—			
113	20, each 6 × 2·3, containing 1 in each ..	20	0 16 6	16 10 0
M. C. S.		No.	each	
40	Hanging tables for Surgeon	3	0 5 6	0 16 6
			£	254 10 4¾

Fitting Steam-ship "Melbourne"—*continued.*

Species.	Quantity.	Rate.			Value.		
		£	s.	d.	£	s.	d.
WORKS NOT SPECIFIED IN CONTRACT.							
Additional cost of hospital sleeping berths built, 6·3 × 2·6 instead of 6 × 2·3, fitted with additional depth of parting-board to the berths built amidships, and additional depth of head and foot-board to all the berths, and making all the parting and lee-boards to slip in grooves	No. 120	each 0	9	6	57	0	0
Additional cost of galvanizing iron bed-bottoms instead of painting ditto	140	0	1	6	10	10	0
Swinging trays of 1-inch deal, with battens round ditto, including suspending lines, and fitting	120	0	2	9	16	10	0
Turned handles, with lanyards	120	0	0	6	3	0	0
Iron rings for chamber utensils, with flat parts made to screw to stanchions, and galvanizing ditto	120	0	1	6	9	0	0
Screws for ditto put on board	gross 3½	per gross 0	3	0	0	10	6
Hooks put in deck for swinging-trays and lifting handles	No. 240	each 0	0	1½	1	10	0
Knapsack-racks under berths	120	0	3	0	18	0	0
Upper Deck.							
1½-Inch deal, top of butchery and drying room	feet 110	per foot 0	0	2½	1	2	11
1 do. front and ends of ditto	334	0	0	1⅝	2	8	8½
½ do. battens behind zinc	12	0	0	1¼	0	1	3
Fir quarter, 2½ × 3, cants	130	0	0	1¼	0	13	6½
Do. 3 × 3, stanchions, &c.	70	0	0	1½	0	8	9
Teak do. 1 × 1½, runners for doors	22	0	0	1	0	1	10
3-Inch English elm plank, butcher's block	9	0	0	9	0	6	9
Danzic Fir quartering, 3 × 3, do.	16	0	0	2	0	2	8
Large meat hooks	No. 12	each 0	0	1½	0	1	6
18 Sheets zinc, lining drying room	cwt. 2·2·23	per cwt. 1	9	0	3	18	6
1½-Inch deal, top of ablution room	feet 120	per foot 0	0	2½	1	5	0
1 do. front, back, and ends of ditto	232	0	0	1¾	1	13	10
Fir quartering, 3 × 3, ditto	70	0	0	1½	0	8	9
Do. 2½ × 3, ditto	82	0	0	1¼	0	8	6½
1½-Inch deal trough, in ablution room	42	0	0	2½	0	8	9
1½-Inch English elm, ditto	2·6	0	0	4½	0	0	11¼
Fir quarter 3 × 3, trough in ablution room	6	0	0	1½	0	0	9
Elm cleats	No. 3	each 0	0	2	0	0	6
Fir quartering, 1½ × 1½, grating in ditto	feet 64	per foot 0	0	0¾	0	4	0
½-Inch fir board, ditto	12	0	0	1¼	0	1	3
Plumbers, lining long washing trough with lead, fixing waste pipe to ditto, lead, solder, and labour	..	..			3	14	0
1½-Inch deal top of washing house	120	0	0	2½	1	5	0
1 do. front and ends of ditto	232	0	0	1⅝	1	13	10
Fir quarter, 2½ × 3, cants	82	0	0	1¼	0	8	6½
Do. 3 × 3, stanchions	70	0	0	1½	0	8	9
1-Inch deal, front and ends of bakery	216	0	0	1⅜	1	11	6
1 do. fittings in ditto	36	0	0	1⅜	0	5	3
1½ do. top and fittings in ditto	78	0	0	2½	0	16	3
Fir quartering, 2½ × 3, ditto	54	0	0	1¼	0	5	7½
Do. 3 × 3, ditto	64	0	0	1½	0	8	0
1½-Inch deal, put on board for cooking-house and hearth-stand	144	0	0	2½	1	10	0
1-Inch deal, ditto	220	0	0	1⅜	1	12	1
Fir quartering, 3 × 3, ditto	108	0	0	1½	0	13	6
Do. 3 × 2½, ditto	48	0	0	1¼	0	5	0

Fitting Steam-ship "Melbourne"—*continued.*

Species.	Quantity.	Rate.	Value.
		£ s. d.	£ s. d.
	feet	per foot	
Fir arris, 3-inch	48	0 0 1	0 4 0
	cwt.	per cwt.	
35 Sheets of iron	4·2·15	0 17 6	4 1 1
	lbs.	per lb.	
Dog nails..	24	0 0 5	0 10 0
	cwt.	per cwt.	
Oakum, caulking tops of houses	0·0·20	1 2 0	0 3 11
Pitch	0·1·0	0 7 0	0 1 9
	pint	per pint	
Oil	1	0 0 5	0 0 5
Caulker's labour: caulking tops of deck houses ..	..	..	0 18 0
A 4-foot cooking apparatus, with hot plate and covers, 2 ovens and shelves, rails, roasting pans and stands, 1 extra large square galvanized iron boiler, with brass cock, to stand on hot plate	..	..	20 0 0
	No.	each	
Brazil iron baking pans with handles	24	0 4 0	4 16 0
Large oven, with double doors, shelves, &c., for baker	1	10 0 0	10 0 0
A 3-foot cooking apparatus, with double boiler and cock for potatoes and water, galvanized cooking apparatus with boilers and brass cocks galvanized	2	8 0 0	16 0 0
12-Gallon square galvanized boilers, with cocks, to stand on hot plate	2	1 5 0	2 10 0
3-Inch cast raised deck flanges and screws for hot air pipes	2	0 3 6	0 7 0
Making 2 brazed iron flanges for air pipes, drilling and cutting 2 holes in back of hearth and fixing ditto with screw bolts and nuts	..	..	0 15 6
	cwt.	per cwt.	
Spare set of bars for 4-foot cooking apparatus ..	0·1·12	0 18 0	0 6 5
Making square rivetted iron funnel-pipe, with 4 branches and elbows for apparatus, baker's oven, and potato boiler, carrying ditto into ship's funnel, fixing ditto on board, bolting down apparatus and oven to iron deck	..	..	2 10 0
	No.	each	
Set of fire-irons for hot-plate apparatus	1	0 6 0	0 6 0
Do. for fire hearths	2	0 4 0	0 8 0
Set of plate iron funnels for ditto	2	0 11 9	1 3 6
Iron baking pan and stand	1	0 5 0	0 5 0
Making 2 lengths of 3½-inch iron pipe, and 4 bevelled elbows for foul-air pipes, fixing ditto to apparatus, trying and taking down ditto	..	..	1 4 6
Strong square tin pans to fit baker's oven	24	0 5 6	6 12 0
Smiths: altering wrought iron galley, cutting out rivets, and taking down plates and refixing ditto, cutting off 8 plates, drilling 64 holes, and punching 84 ditto, 200 new rivets, shortening 1 iron door, repairing 1 plate and 2 studs for hasps, 2 new plates for locks, 7 lbs., and fixing, cutting out 2 4-in. round holes for pipes	..	..	4 0 0
Poop.			
	feet	per foot	
1½-Inch deal, altering door to cabin	24	0 0 2½	0 5 0
¾ do. do.	6	0 0 1½	0 0 9
Filling-in part of skylight over cuddy with stout zinc for air funnels to poop, through, including labour, solder, and nails	..	..	0 9 10
2-Inch deal, widening officers' berths	36	0 0 3½	0 10 6
1½ do. drawers over stern lockers	14	0 0 2½	0 2 11
1¼ do. do. do.	18	0 0 2¼	0 3 4½
1 do. do. do.	12	0 0 1¾	0 1 9
¾ do. do. do.	66	0 0 1½	0 8 3
½ do. do. do.	24	0 0 1¼	0 2 9

Fitting Steam-ship "Melbourne"—*continued.*

Species.	Quantity.	Rate.	Value.
		£ s. d.	£ s. d.
Between Decks.—Surgery.			
	feet	per foot	
1½-Inch deal, platform over hatchway	185	0 0 2½	1 18 6½
⅜ do. lining ditto	185	0 0 1½	1 3 1½
1 do. inclosure of surgery	460	0 0 1⅜	3 7 1
Fir quarter, 3 × 3, stanchions do.	112	0 0 1½	0 14 0
¾-Inch deal, lining do.	60	0 0 1½	0 7 6
	No.	each	
Elm cleats	20	0 0 2	0 3 4
	feet	per foot	
1¼-Inch deal, dresser in surgery	66	0 0 2½	0 13 9
1¼ do. drawers, &c., do.	48	0 0 2½	0 9 0
1 do. do. do.	48	0 0 1⅝	0 7 0
¾ do. do. do.	168	0 0 1½	1 1 0
⅜ do. do. do.	24	0 0 1½	0 3 0
½ do. do. do.	168	0 0 1¼	0 17 6
1 do. shelves for bottles, &c.	60	0 0 1⅝	0 8 9
⅝ do. do. do.	46	0 0 1½	0 5 9
2 do. water table to skylight	3	0 0 3½	0 0 10½
	No.	each	
Swinging candle-lamps, 7*s.* 6*d.*, and spare glasses, 9*d.*	4 of each	0 8 3	1 13 0
Galvanized slop-pails	1	0 5 0	0 5 0
Enamelled wash-hand basin, with plug and chain	1	0 7 0	0 7 0
Enamelled soap tray	1	0 1 4	0 1 4
Jointed galvanized iron ring to fix ditto, with double joint and stop	1	0 5 3	0 5 3
	feet	per foot	
1-Inch deal, cart for sponges, water bottles, pails, &c.	18	0 0 1¾	0 2 7½
¾ do. do. do. do.	6	0 0 1½	0 0 9
1½ do. elm do. do. do.	3	0 0 4½	0 1 1½
2 Axle-trees, bushes for wheels, &c.	..	..	0 9 0
	No.	each	
Zinc-water bottles	2	0 2 9	0 5 6
Strong painted pail for ditto	1	0 4 6	0 4 6
Strong painted wash-hand basin, with brass plug	1	0 4 6	0 4 6
3-Gallon japanned water jugs	2	0 6 9	0 13 6
	doz. lbs.	per doz. lbs	
Palmer's patent wax candles	12	0 12 6	7 10 0
	No.	each	
Cases for ditto	2	0 2 6	0 5 0
Camp stools	24	0 3 6	4 4 0
Canvas screens	..	..	0 4 2
	feet	per foot	
1-Inch deal, shutters to air funnel	6	0 0 1¾	0 0 10½
Fir quarter, 3 × 2, do.	8	0 0 1¼	0 0 10
Do. 1½ × 1½, cants on deck in way of ports	160	0 0 0¾	0 10 0
Orlop Deck			
1-Inch deal, lockers, drawers, issuing dressers, &c., in store room	496	0 0 1¾	3 12 4
¾-Inch deal, ditto	108	0 0 1½	0 13 6
Fir quartering, 2½ × 3, clothes racks	180	0 0 1¼	0 18 9
Do. battens, 1 × 4, do.	444	0 0 1	1 17 0
Do. ½ × 3, do.	120	0 0 0½	0 5 0
Do. 3½ × 1, knapsack rack	1,643	0 0 1	6 16 11
Fir quarter, 3 × 2, do.	66	0 0 1	0 5 6
Do. 3 × 3, do.	12	0 0 1½	0 1 6
	No.	each	
Double wicker knife trays, lined with tin	4	0 8 6	1 14 0
Do. large plate baskets	3	0 7 6	1 2 6
Brass hooks	12	0 0 1½	0 1 6
Jointed seat-irons, shifting benches	36	0 1 9	3 3 0
Bolts and nuts	24	0 0 2½	0 5 0
Buckles for seat irons	34	0 0 1½	0 4 3
Pins with chains for ditto	48	0 0 2	0 8 0

Fitting Steam-ship "Melbourne"—*continued.*

Species.	Quantity.	Rate.	Value.
		£ s. d.	£ s. d.
	No.	each	
Stay hooks and staples, 3-inch	22	0 0 1½	0 2 9
	lbs.	per lb.	
Iron bolts for shifting tables	33	0 0 1½	0 4 1½
	pairs	per pair	
Brass butt-hinges and screws for skylight	2	0 0 9	0 1 6
	No.	each	
Padlocks	8	0 0 8	0 5 4
Ditto	6	0 0 9	0 4 6
Hasps and staples	14	0 0 3½	0 4 1
	doz.	per doz.	
Staples, large	3	0 0 9	0 2 3
Do. small	11½	0 0 6	0 5 9
	pairs	per pair	
Back flap hinges and screws	3	0 1 2	0 3 6
Cross gamet hinges and screws, 20 inches	4	0 1 6	0 6 0
Do. do. 18 inches	6	0 1 4	0 8 0
	sheets	per sheet	
Tin for lining lockers	150	0 0 2¼	1 8 1½
	M.	per M.	
Wrought tacks for ditto	3	0 1 4	0 4 0
	doz.	per doz.	
Screws, 1½-inch	12	0 0 2¼	0 2 3
Do. 3-inch	6	0 0 6	0 3 0
Do. do.	4	0 1 0	0 4 0
Line hooks	12	0 0 7	0 7 0
Necked bolts and screws, 4-inch	10	0 0 5½	0 4 7
Buttons and screws	3	0 0 2	0 0 6
	lbs.	per lb.	
Punched hooped iron	4	0 0 2½	0 0 10
	No.	each	
Screw eyes	4	0 0 4	0 1 4
	cwt.	per cwt.	
Iron hand-rails to ladders, with straps and sockets ..	0·3·2	1 15 0	1 6 10½
	No.	each	
Screw bolts for ditto	8	0 0 3	0 2 0
Drawer handles	32	0 0 2¼	0 6 0
Ditto	10	0 0 2	0 1 8
	doz.	per doz.	
Screws for ditto, ¾-inch	12	0 0 1	0 1 0
	No.	each	
6-Inch tower bolts and screws	2	0 0 6	0 1 0
Shutter bolts, 12-inch	2	0 1 0	0 2 0
Square-headed coach screws	6	0 0 2½	0 1 3
12-Inch stay hooks and staples for skylight	2	0 0 6	0 1 0
3-Inch solid ward dead locks, with 2 keys to each ..	4	0 4 6	0 18 0
6-Inch iron rim locks complete..	2	0 2 9	0 5 6
Brass drawer locks	5	0 0 10	0 4 2
Square-headed coach screws, 18 at 2*d.*, 4 at 2½*d.*, and 5 at 4*d.*	..	..	0 5 6
Nails, 2,525 at 2*d.*, 5,200 at 3*d.*, 6,050 at 3½*d.*, 7,500 at 5*d.*, 9,250 at 8*d.*, 800 at 1*s.*	..	..	6 15 9
Lengthening iron funnels	..	..	1 15 10
	hundred	per hundred	
Clout nails	14	0 0 2	0 2 4
	No.	each	
Screw ring-bolts	8	0 0 3	0 2 0
Robert's patent stove	1	1 10 0	1 10 0
10-Foot iron funnel, and elbows for ditto	1	0 7 0	0 7 0
Stand for ditto, lined with lead	1	0 7 0	0 7 0
Case for ditto	..	..	0 4 6
Making and fixing zinc pipes between decks, with funnel heads to fit iron deck flanges, to draw off foul air from between decks	..	..	2 0 0
Perforated zinc, hospital, &c.	96	0 0 6	2 8 0
Ditto, fire, butchery, &c.	24	0 0 5	0 10 0
	lbs.	per lb.	
Candles	20	0 0 7½	0 12 6

Fitting Steam-ship "Melbourne"—*continued.*

Species.	Quantity.	Rate.	Value.
		£ s. d.	£ s. d.
Joiners' Labour: building ablution room, making and fixing washing trough in ditto; building drying house, butcher's house, wash-house and bakery, on upper deck; fitting sliding and hanging doors and shutters to all the deck-houses; putting on locks and fastenings; making butcher's block; putting in hooks, &c.; fitting up bakery with dresser, shelves, &c.; lining drying-house with zinc; making stands for boilers, and lining ditto with sheet iron; cutting perforations in doors of officers' water-closets on quarter deck; enlarging sleeping berths (sick officers' cabins) in poop; removing furniture from mate's cabin for agent, and fixing ditto in another cabin; taking down and refitting sleeping berth, wash-hand stand, &c., in principal medical officer's cabin; altering doors, putting in locks, &c., in cabins; building chests of drawers over stern-lockers for linen; building surgery between decks, with folding doors on each side; laying platform over hatchway; fitting up surgery with dressers, and drawers under ditto, shelves, bottle-racks, &c.; casing iron spindles, and fitting sliding shutters under air funnels; fitting up store-room on orlop deck with lockers, drawers, clothes racks, issuing dresser, &c., lining lockers with tin; building rack on orlop deck for knapsacks, and putting up fittings for knives, &c.; fitting ship's ladders in place, fitting iron hand-rails to ladders, &c.	..	..	54 13 6
Railway, lodging, and allowance to men working at Woolwich	..	..	5 0 0
Waterage, waterman, and craft cartage for above work	..	..	6 10 0
Labourers assisting to load and unload craft	..	..	1 15 0
Painting deck-houses outside 2 coats; painting surgery inside and out, numbering berths, &c... ..	..	..	2 15 0
Stores put on board.			
	No.	each	
Galvanized iron bed bottoms	12	0 9 6	5 14 0
	feet	per foot	
Fir quarter, 3 × 3, spare stanchions planed and rounded	84	0 0 2	0 14 0
1-Inch deal, spare side boards, ditto	84	0 0 2	0 14 0
	No.	each	
Elm stanchion-cleats and nails, in case	100	0 0 2	0 16 8
			£684 18 4¾

LIST of Articles fitted and Work performed at Deptford, on board the Steamship "Mauritius," Regular Transport, between the 15th of December, 1859, and the 11th of January, 1860. Per Contract, dated 20th June, 1857, and Letter of Comptroller of Transport Service, of 1st December, 1859.

No. of Articles.	Species.	Quantity.	Rate.	Value.
			£ s. d.	£ s. d.
S. S.	Sleeping berths, in two tiers—	persons	per person	
5	8, each 6 × 2·3, containing 1 in each ..	8	0 9 4	3 14 8
7	6, each 6 × 3, containing 2 in each ..	12	0 5 2	3 2 0
		No.	each	
22	Step ladders	6	0 10 9	3 4 6
		feet	per foot	
24	Lining to ladders	24	0 0 3	0 6 0
25	Side benches	12	0 0 4½	0 4 3
27	Benches in midships	457	0 0 6	11 8 6
29	Mess tables in midships	645	0 0 6¾	18 2 9¾
		No.	each	
43	Hammock-hooks	1,108	0 0 4	18 9 4
		feet	per foot	
37	Accoutrement battens	950	0 0 1¾	6 18 6½
38	Screen battens	12	0 0 2¼	0 2 3
		No.	each	
39	Knapsack-hooks	1,291	0 0 1¼	6 14 5¾
		feet	per foot	
45	Bulkhead, wrought	632	0 0 4	10 10 8
		muskets	per musket	
72	Arm stands..	216	0 0 6	5 8 0
		No.	each	
74	Upper deck privies, double	8	7 5 6	58 4 0
80	Urinals, lined with lead	2	1 15 6	3 11 0
81	Air tubes, fitted	10	0 6 6	3 5 0
87	Air funnels, fitted	10	0 13 0	6 10 0
91	Stout trunks to air tubes	6	1 0 0	6 0 0
		letters	per letter	
94	Writing	488	0 0 0½	1 0 4
		feet	per foot	
96	Grating bulkhead	558	0 0 4½	10 9 3
		No.	each	
97	Doors fitted in grating bulkhead	5	0 4 0	1 0 0
		feet	per foot	
101	Guard battens and stanchions to hatchway	352	0 0 4	5 17 4
		No.	each	
108	Iron screw bolts and nuts	40	0 0 8	1 6 8
	Hospital sleeping berths, in one tier—	persons	per person	
112	36, each 6 × 2·3, containing 1 in each ..	36	0 17 6	31 10 0
	Hospital sleeping berths, in two tiers—			
113	168, each 6 × 2·3, containing 1 in each ..	168	0 16 6	138 12 0
M.C.S.		feet	per foot	
58	Benches, portable	36	0 0 7⅓	1 2 6
			£	356 14 1

Fitting Steam-Ship "Mauritius"—*continued.*

Species.	Quantity.	Rate.			Value.		
		£	s.	d.	£	s.	d.
WORKS NOT SPECIFIED IN CONTRACT.							
Additional cost of hospital sleeping berths, built 6·3 × 2·6 instead of 6 × 2·3, fitted with additional depth of parting board to the berths built amidships, and additional depth of head and foot-boards to all the berths, and making all the parting and lee-boards to slip in grooves	No. in 1 tier 36	each 0	9	6	17	0	2
Do. do. do. do.	No. in 2 tiers 168	each 0	8	3	69	6	0
Additional cost of galvanizing iron bed-bottoms instead of painting ditto	No. 204	each 0	1	6	15	6	0
Knapsack-racks under berths	36	0	3	0	5	8	0
Swinging-trays of 1-inch deal, with batten round edge, including lines for suspending	200	0	2	9	27	10	0
Turned handles, with lanyards	200	0	0	6	5	0	0
Galvanized iron rings for securing chamber utensils, made with flat parts to screw to stanchions	230	0	1	6	17	5	0
Screws for do., put on board	gross 6½	per gross 0	3	0	0	19	6
Screw-hooks put in deck for swinging-trays and lifting handles	No. 248	each 0	0	1½	1	11	0
Upper Deck.							
1-Inch deal, butcher's house	feet 189	per foot 0	0	1¾	1	7	6
1½ do. top of do.	96	0	0	2½	1	0	0
½ do. battens for do.	24	0	0	1¼	0	2	6
Fir quarter, 3 × 3, stanchions, &c., do.	96	0	0	1½	0	12	0
Do. 3 × 6, beams for do.	8	0	0	3	0	2	0
3-Inch English elm plank, butcher's block	9	0	0	9	0	6	9
Dantzic fir quarter, 3 3, do.	16	0	0	2	0	2	8
Lengthening air funnels, and scraping, cleaning, and repairing do.; 10 new forged hoops rivetted on do.	No. 10	each 0	10	6	5	5	0
Making and fitting canvas coats to air pipes	10	0	6	5	3	4	2
Cast-iron deck flanges for do.; cutting air pipes and fitting cowls to flanges	6	0	11	8	3	10	0
18-Inch cast-iron deck flange for large air pipe, 14 screw bolts and nuts fixing do.	1	0	18	0	0	18	0
Making 18-inch wrought-iron air-pipe, and wrought-iron flange for between-decks, and pipe with bell-mouth for upper deck	1	4	15	0	4	15	0
Hair-felt for deck flange	sheets 16	per sheet 0	0	5	0	6	8
White lead	cwt. 0·2·0	per cwt. 1	8	0	0	14	0
1½-Inch deal, circular cants to air funnels	feet 28	per foot 0	0	2½	0	5	10
Cuddy.							
1½-Inch deal, widening sleeping berths in officers' cabins	36	0	0	2½	0	7	6
Surgery :—Between Decks.							
1-Inch deal, inclosing surgery	572	0	0	1¾	4	3	5
Fir quarter, 3 × 3, stanchions do.	128	0	0	1½	0	16	0
Elm cleats do.	26	0	0	2	0	4	4
1½-Inch deal, dresser top, &c.	128	0	0	2½	1	6	8
1¼ do. drawers, &c.	48	0	0	2	0	8	0
1 do. do. bottle-racks, &c.	120	0	0	1¾	0	17	6
¾ do. do. do.	250	0	0	1¼	1	11	3
⅝ do. do. do.	36	0	0	1⅛	0	4	6

Fitting Steam-ship "Mauritius"—*continued.*

Species.	Quantity.	Rate.			Value.		
		£	s.	d.	£	s.	d.
	feet	per foot					
½-Inch deal drawers, bottle-racks, &c.	228	0	0	1¼	1	3	9
	No.	each					
Swinging candle-lamps	4	0	7	6	1	10	0
With spare glasses	4	0	0	9	0	3	0
Enamelled wash-hand basin, with plug and chain ..	1	0	7	0	0	7	0
Enamelled soap tray	1	0	1	4	0	1	4
Jointed galvanized iron ring to fix do., with double joint and stop	1	0	5	3	0	5	3
Galvanized slop pail	1	0	5	0	0	5	0
3 Gallon japanned water cans, with covers	2	0	8	9	0	17	6
	doz. lbs.	per doz. lbs.					
Palmer's patent wax candles	12½	0	12	6	7	16	3
	No.	each					
Cases for do.	2	0	2	6	0	5	0
Canvas screens for women	..	..			0	13	6
	feet	per foot					
1-Inch deal, inclosing bakery, drying room, dirty clothes room, wash-house, and ablution room ..	990	0	0	1⅜	7	4	4½
Fir quarter, 3 × 3, stanchions	268	0	0	1½	1	13	6
	No.	each					
Elm cleats	24	0	0	2	0	4	0
	feet	per foot					
Fir scantling, 3 × 4, false beams to block-down for hammock-hooks	936	0	0	2	7	16	0
	No.	each					
Elm cleats do.	34	0	0	2	0	5	8
	feet	per foot					
1½-Inch deal, washing trough in ablution room ..	24	0	0	2⅛	0	5	0
1¼ do. do. do. ..	24	0	0	2¼	0	4	6
1⅛ English elm do. do. ..	2·6	0	0	4⅛	0	0	11¼
Fir quartering, 3 × 3, do. ..	10	0	0	1½	0	1	3
Lining lead washing trough, and fixing waste-pipe to do., lead, solder, labour	..	..			3	14	0
Fitting 2 long scuppers under washing place, and 8 brass staples to do., and fixing, at Greenhithe ..	..	..			2	8	6
Fir quarter, 2 × 2, grating in ablution room	66	0	0	1	0	5	6
¾-Inch deal do. do.	12	0	0	1½	0	1	6
Lower Troop Deck.							
Fir quarter, 2 × 3, to receive hooks for swinging-trays	186	0	0	1½	0	19	4½
Fir quarter, 3 × 3, stanchions for cots	96	0	0	1½	0	12	0
	No.	each					
Elm cleats for do.	30	0	0	2	0	5	0
Iron clasps round pillars for do.	2	0	2	0	0	4	0
	feet	per foot					
Fir battens, ¾ × 3, shelves for shakos	668	0	0	⅓	1	7	10
1-Inch deal, shutters to air funnels	24	0	0	1¾	0	3	6
Fir quarter, 2 × 3, do.	22	0	0	1¼	0	2	3½
Orlop Forward.							
1-Inch deal, lockers, drawers, issuing dresser, &c., in store-room	518	0	0	1⅜	3	15	6½
¾ do. do. do.	104	0	0	1⅛	0	13	0
Fir quartering, 2⅛ × 3, clothes racks	192	0	0	1¼	1	0	0
Do. battens, 1 × 4, do.	456	0	0	1	1	18	0
Fir quarter, 3 × 2, knapsack racks	56	0	0	1¼	0	5	10
Do. 3 × 3, do.	12	0	0	1½	0	1	6
Fir battens, 3½ × 1, do.	1,585	0	0	1	6	12	1
After Hold.							
	feet	per foot					
Fir quartering, 2 × 3, hand rails to ship's step-ladders	176	0	0	1¼	0	18	4
	No.	each					
Small screw ring-bolts	18	0	0	2½	0	3	9

Fitting Steam-ship "Mauritius"—*continued.*

Species.	Quantity.	Rate.	Value.
		£ s. d.	£ s. d.
	No.	each	
Large square staples	4	0 0 1½	0 0 6
	pair	per pair	
Back-flap hinges and screws	2	0 1 2	0 2 4
Screws, ¾-inch, 3 dozen at 1*d.*; 1-inch, 1 dozen at 1½*d.*; 1¼-inch, 22 dozen at 2*d.*; 1½-inch, 16 dozen at 2½*d.*; 1¾-inch, 14 dozen at 2½*d.*; 2-inch, 13 dozen at 3*d.*; 3-inch, 1½ dozen at 6*d.* per dozen	..	..	0 13 11½
	No.	each	
Tower bolts and screws, 6-inch	10	0 0 6	0 5 0
	pair	per pair	
H-hinges and screws, 4-inch	2	0 0 4½	0 0 9
Cross gamet hinges and screws, 20-inch	4	0 1 6	0 6 0
Do. do. 18-inch	4	0 1 4	0 5 4
Do. do. 16-inch	5	0 1 2	0 5 10
Do. do. 14-inch	1	0 1 0	0 1 0
Stay hooks and staples, 10 of 3-inch, at 1½*d.*; 2 of 12-inch, at 6*d.*	..	..	0 2 3
	No.	each	
Screw hooks	76	0 0 1	0 6 4
	lbs.	per lb.	
Hoop-iron punched, and nails	7	0 0 2½	0 1 5½
	No.	each	
Screw bolts and nuts, 9 × ½	130	0 0 4½	2 8 9
Do. 7 × ⅜	33	0 0 4	0 11 0
Do. 4 × ½	24	0 0 2½	0 5 0
	sheet.	per sheet	
Tin for lining lockers	150	0 0 2¼	1 8 1½
	M.	per M.	
Wrought tacks	2	0 1 4	0 2 8
	No.	each	
Padlocks	20	0 0 8	0 13 4
Hasps and staples	14	0 0 3½	0 4 1
Strong meat-hooks, to order	10	0 0 6	0 5 0
Smaller do.	12	0 0 1½	0 1 6
Screw eyes	6	0 0 2½	0 1 3
Drawer handles	42	0 0 2	0 7 0
	doz.	per doz.	
Screws for do.	8	0 0 1	0 0 8
	No.	each	
Solid ward dead locks, 5-inch	2	0 3 6	0 7 0
Do. do. 6-inch	1	0 3 9	0 3 9
Brass hooks	6	0 0 1½	0 0 9
Square-headed coach screws	6	0 0 2½	0 1 3
Glass, paper, glue, &c.	..	..	0 3 6
	lbs.	per lb.	
Deck nails	24	0 0 2	0 4 0
	No.	per 100	
Clout nails	1,400	0 0 2	0 2 4
Nails, 1,025 at 2*d.*, 2,050 at 2½*d.*, 3,075 at 3*d.*, 4,150 at 5*d.*, 6,200 at 8*d.*, 500 at 1*s.*	..	..	3 17 3½
	No.	each	
Iron stay for table, with 3 thumb-screws	1	0 8 0	0 8 0
Double wicker knife tray, lined with tin	5	0 8 6	2 2 6
Do. large plate baskets	3	0 7 6	1 2 6
Chub's patent locks, for purveyer's cabin	2	0 11 6	1 3 0
Roberts' patent stove	1	1 10 0	1 10 0
Iron funnel and elbows for do., 10 feet	..	..	0 7 0
Stand for do., lined with lead	1	0 7 0	0 7 0
Case for do.	1	0 4 6	0 4 6
	feet	per foot	
Perforated zinc, hospital, &c.	96	0 0 6	2 8 0
Do. butcher's house, &c.	48	0 0 5	1 0 0
Joiners' labour: building butcher's house on upper deck, with doors, shelves, &c.; making and fixing butcher's block; fitting circular cants to air funnels, fixing and screwing down flanges for air funnels on			

Fitting Steam-ship "Mauritius"—*continued.*

Specie.	Quantity.	Rate.	Value.
		£ s. d.	£ s. d.
quarter-deck, and cutting holes and fitting large do. by companion; enlarging sleeping berths; putting on locks, shifting furniture, &c., in officer's cabin; building surgery between decks; making and fixing two dressers in do., with drawers underneath; fitting bottle-shelves, &c., in surgery; building ablution room between decks, with long washing trough and grating in do.; building wash-house, drying room, bakehouse, and dirty clothes room; fitting, sliding, and hanging doors to all the aforesaid houses; fitting false beams overhead on upper troop deck to block down for hammocks; fitting shelves in shako room, putting up and cleating stanchions for cots; fitting up store-room with dressers, lockers lined with zinc, drawers, issuing dresser, and clothes racks; building knapsack racks on orlop deck, fitting and cleating ship's step-ladders, and fitting hand-rails to ditto ..	..	..	50 12
	lbs.	per lb.	
Candles for workmen	28	0 0 7½	0 17 6
Waterman and boat hire, workmen's waterage, &c., for above work	..	..	6 12 6
Labourers assisting to load and unload craft	..	..	2 2 6
Painters: knotting, priming, stopping, and painting butcher's house, outsides of wash-house, bakehouse, ablution room, &c., inside and outside of surgery, air funnel, inside and out of ditto	..	..	4 10 0
Stores put on board.			
	No.	each	
Galvanized iron bed bottoms	18	0 9 6	8 11 0
Elm stanchion, cleats, and nails in case	120	0 0 2	1 0 0
	feet	per foot.	
Fir quartering, 3 × 3, spare stanchions, planed and rounded	96	0 0 2	0 16 0
1-Inch deal, spare side boards, ditto	96	0 0 2	0 16 0
		£	734 6 0

Height of Berths aboard the Steam Transport Ships, "Melbourne" and "Mauritius."

"*Melbourne.*"

	ft.	in.
Height from deck to deck	7	0
Ditto from lower deck to top of bed bottom	2	3
Ditto from bed bottom to underside of upper deck	4	9

"*Mauritius.*"

	ft.
Height from lower deck to top of lower bed bottom	1
Ditto between lower and upper berths	3
Ditto from upper bed bottom to underside of upper deck	4

N.B.—The berths in one height were built the same height from the deck as those in the "Melbourne."

Steam-ship "Melbourne."

	Fore and Aft.		Athwart.		Height.	
	ft.	in.	ft.	in.	ft.	in.
Ablution rooms	12	6	6	6	7	6
Wash-house and dirty clothes	10	0	6	6	7	6
Butcher's house	6	0	6	6	7	6
Baker's ditto	8	0	6	6	7	6
Privies on deck (6 in number), each	4	2	4	9	7	6
Drying room	10	6	6	6	7	6

Surgery, as per plan herewith. (See page 337.)

Ports and Hatchways.—26 ports (13 on each side), 4 measuring about 5 feet square, and the others about 2 feet 10 inches square. 3 Hatchways—the main hatchway, 10 feet 6 inches by 7 feet; the others about 6 feet square each.

Gilmore's patent funnel ventilators fitted, 2 forward and 2 against after bulkhead, 12 inches square at base, 12 inches diameter upwards.

Oval deck air-tubes, size, 12 inches by 4 inches, 18 on main deck, 2 on poop, and 6 on forecastle, trunked down to 'tween decks.

	ft.	in.	ft.	in.	ft.	in.
Issuing room	10	0	8	6	6	6
Storeroom	16	0	9	0	6	6
Pack-room, including arm-rack	14	0	9	0	6	6

The above dimensions are as near as can be ascertained.

Steam-ship "Mauritius."

	Fore and Aft.		Athwart.		Height.	
	ft.	in.	ft.	in.	ft.	in.
Ablution room	12	0	7	6	8	0
Wash-house	10	0	7	6	8	0
Dirty-clothes room	6	0	7	6	8	0
Butcher's house	7	0	7	0	6	0
Drying room	10	0	7	6	8	0
Bakehouse	10	0	7	6	8	0
Privies on deck (8 in number), each	4	2	4	6	6	0
Issuing room and storeroom in orlop	13	6	12	0	6	9
Pack-room	13	0	11	0	6	9

Number of Ports and size of each.—61 side lights on each side, 11 inches in diameter; 2 large ports or gangways, 6 feet 9 inches by 6 feet on each side of main deck; 5 ports, 2 feet square, on each side, 'twixt decks.

Hatchways.—8, measuring 8 feet 6 inches by 7 feet; 3, measuring 3 feet by 3 feet 6 inches.

Ventilators:—

Fore compartment, lower deck.—4 Gilmore's funnels, 12 inches square at base; 2 ship's ventilating funnels, already in, about 18 inches diameter.

Middle compartment, lower deck.—6 Oval deck air tubes, 12 inches by 4 inches, trunked down from upper deck; 4 ships funnels, already in, about 18 inches diameter.

After compartment, lower deck.—6 Gilmore's funnels, fitted, 12 inches square at base; 1 large funnel fitted, about 18 inches diameter; 1 ditto, already in.

Upper troop deck.—4 Oval deck tubes, 12 inches by 4 inches, fitted in addition to those fitted for lower deck.

Surgery, as per plan.

LIST of Articles fitted and put on board the Steam-ship "Mauritius," at Deptford, January 1860.

Articles supplied from Transport Stores and fitted by the Contractors.

10 Cast-iron air tubes.
40 Screw bolts and nuts for ditto.
10 Gilmore's patent air funnels.

Articles supplied and fitted by Contractors.

8 Sleeping berths, with wooden bottoms, in two heights, 6 feet by 2 feet 3 inches, containing one in each, 8 persons.
6 Sleeping berths, with wooden bottoms, in two heights, 6 feet by 3 feet, containing two in each, 12 persons.
6 Step ladders, short, with iron straps.
Side benches to women's berths, &c.
Mess tables in all the compartments.
Benches do.
1,108 Hammock hooks.
Accoutrement battens.
1,291 Knapsack hooks, of wood, 1,161 nailed on, 130 put on board in case.
Bulkheads of baggage room and in after compartment on lower deck, to separate women from stores.
216 Arm-stands for muskets.
8 Upper deck privies, double, shoots lined with lead, 16 seats.
2 Urinals, lined with lead.
6 Wooden trunks to air tubes.
Grating bulkhead, inclosing storeroom on orlop, and shako room on lower troop deck.
Guard battens and stanchions to hatchways.
36 Persons' sleeping berths, hospital, with galvanized iron bottoms, 1 tier.
168 Ditto ditto 2 tiers.
2 Portable benches or forms.
230 Iron rings for chamber utensils, galvanized.
6½ Gross screws for ditto.
200 Swinging trays with lanyards.
200 Turned lifting handles and ditto.
248 Screw hooks in deck, for ditto.
All the fir scantling, screw bolts and nuts used for blocking-down hammocks, upper troop deck.
Butcher's house, built on upper deck, with butcher's block and fittings.
6 Cast-iron flanges for air funnels on quarter deck.
1 Large wrought-iron air funnel by companion, on starboard side of quarter deck, with iron flanges.
Surgery, built between decks, and fitted with dresser and drawers at each end, bottle shelves, &c.
4 Swinging candle lamps.
12½ Dozen lbs. Palmer's patent candles, in two cases.
1 Wash-hand basin, 1 slop pail and 1 soap tray.
2 3-gallon japanned water cans, with covers.
Bulkheads, inclosing bakery, drying room, dirty clothes room, wash-house, and ablution room.
1 Long trough in ablution room, lined with lead.
1 Grating on deck in ditto, of wood.
Stanchions and iron clamps for cots.
Shelves in shako room.
Lockers, drawers, clothes racks, issuing dresser, in storeroom on orlop deck.

Knapsack racks on orlop deck.
5 Double wicker knife trays, lined with tin.
3 Double wicker large plate baskets.
1 Roberts' patent stove, with stand and iron funnel, in case.
18 Spare galvanized iron bed bottoms.
96 Feet spare fir stanchions, 3 feet by 3 feet, for berths.
96 Feet spare lee boards, 1 inch, for ditto.
120 Elm stanchion cleats, in case.

The above charged to Admiralty.

4 Stretchers, with slings.
492 Feet run zinc tubing, 4 inch, in three cases.
50 Square yards sheet zinc, in case.
14 lbs. zinc nails.
2 Surgeons' operating tables.

The above charged to the War Department.

List of Articles fitted and put on board the Steam-ship "Melbourne," at Deptford, January 1860.

Articles supplied from Transport Stores, and fitted on board by Contractor

26 Cast-iron air tubes.
104 Screw bolts and nuts for ditto.
4 Gilmore's patent air funnels.

Articles supplied and fitted by Contractors.

3 Persons' sleeping berths in poop.
1 Wash-hand stand, with lid.
3 Hatchway step ladders, with iron handrails.
Mess tables between decks.
Benches ditto.
1,086 Hammock hooks between decks and in poop.
950 Wood knapsack hooks, 750 nailed on, 200 put on board in case.
Bulkhead across ship between decks.
Arm-racks fitted in orlop for 216 muskets.
6 Upper deck privies, double, shoots lined with lead, 12 seats.
1 Urinal lined with lead.
6 Trunks to air tubes, wood.
Grating bulkhead on orlop decks, inclosing store room.
Guard battons and stanchions to hatchway.
120 Persons' sleeping births, hospital, with galvanized iron bottoms, 1 tier.
20 Ditto ditto 2 tiers.
3 Hanging tables.
120 Swinging trays with lanyards.
120 Hooks in deck for ditto.
120 Lifting handles, turned with lanyards.
120 Hooks in deck, for ditto.
120 Iron rings for chamber utensils, galvanized.
3½ Gross screws for ditto.
120 Knapsack racks under sleeping berths.
12 Spare iron bed bottoms.
12 Spare wooden stanchions, 3 feet by 3 feet.
12 Spare lee boards for berths.
100 Spare elm cleats for stanchions.

Houses built on upper deck for butcher; drying-room lined with zinc; ablution room fitted with long trough, lined with lead, and grating on deck; bakery and wash-house; two stands for hearths, and materials for two houses to cover ditto, and sheet-iron to line ditto, put on board.
1 4-Feet cooking apparatus, with hot plate and set of spare bars, &c.
1 Large oven, with doors and shelves.
1 3-Feet baking apparatus, with boiler and cock.
1 12-Gallon boiler, galvanized, with brass cock, to stand on hot plate.
2 Cooking apparatus, with boilers and brass cocks, for houses to be built by carpenter.
3 Sets of fire irons.
1 Iron baking pan and stand.
24 Square tin pans for baker's oven.
Iron flanges on deck; zinc pipes to convey air from between decks; iron pipes to connect ditto to fire hearth, packed in cases.
Platform laid over hatchway; surgery built between decks, and fitted with dresser, drawers, bottle-shelves, &c.
4 Swinging candle lamps.
1 Slop-pail.
1 Wash-hand basin.
1 Soap dish.
1 Cart for surgical dressings, with basin, slop-pail, and hot and cold water vessels.
2 Japanned water jugs.
12 Dozen lbs. Palmer's candles, in two cases.
24 Camp stools.
Drawers in stern-lockers for linen.
Lockers, drawers, shelves, clothes racks and issuing dresser in store room on orlop.
Knapsack racks built on orlop.
4 Wicker knife trays, lined with tin.
3 Wicker large plate baskets.
1 Roberts' patent stove, packed in case, with stand and iron funnels.

The above charged to Admiralty.

4 Stretchers with slings.
504 Feet zinc tubing, 4 inch, in two casks.
14 lbs. zinc nails.
50 Superficial feet sheet zinc, in case.
1 Surgeon's amputating table.

The above charged to War Department.

SCHEDULE of Fittings, &c., put up or supplied on board Steam-ship "Mauritius," Regular Transport, at Deptford, December 1859, January 1860.

SPAR OR WEATHER DECK.

8 Double privies; troughs lined with lead.
Butchery, built of 1-inch deal, ploughed and tongued with 1½-inch; top-grooved, and tongued and caulked; fitted with perforated zinc in upper part, all round; door hung, fitted with hinges and padlock; house painted, and fitted inside with butcher's block, shelf, meat-hooks, &c.
10 Air-funnels, supplied from Transport Store, lengthened, fitted, and supplied with canvas coats, painted.
10 Air-tubes, fitted.
40 Screw-bolts for do., with nuts, supplied.
1 Large air-funnel on quarter-deck, supplied and fitted.

Cuddy.

Widening sleeping-berths in 6 cabins, shifting furniture, &c.
Cot-hooks in cabins.
Chubb's locks to purveyors' cabins.
Writing-labels for cabins.

MAIN OR UPPER TROOP DECK.

Surgery, inclosed with 1-inch deal, ploughed and tongued with stanchions, 3 feet by 3 feet, perforated zinc round upper part; two pairs of folding doors, with hinges, locks, and bolts; dresser at each end of surgery, with drawers underneath; bottle-racks, &c., fitted alongside and over dresser; metal wash-hand basin and plug; ditto, slop-pail and soap-dish; iron ring and fittings for ditto; two water cans; cot-hooks and brass hooks for towels.
2 Swinging candle-lamps, supplied and fitted.
Candles in two cases.
1 Amputating table.

Port Side.

Bakery, built with 1-inch deal, ploughed and tongued.
Drying-room, with sliding-door, and painted.
Dirty-clothes room.
Washhouse.
Ablution room, fitted with trough, lined with lead, and pipe to carry off water.

Both Sides.

6 Trunks to air-tubes, fitted between decks, and caulked.
262 Hammock-hooks.
Fir quartering, 3 feet by 3¾ feet; blocking ditto down from upper deck.
Screw bolts and nuts, ditto.
Elm cleats and nails, ditto.

Starboard Side.

8 Hospital berths, in one tier along ship's side, fitted with galvanized iron bottoms.
8 Knapsack racks.
Arm-stand.
Mess-table.
Benches.

LOWER TROOP DECK.—*Fore Compartment.*

Dimensions:—Height, 8 feet 3 inches from deck to deck; breadth, 26 feet 9 inches forward, 36 feet 9 inches aft; length 41 feet.
10 Hospital berths in one tier, 6 feet 3 inches by 2 feet 6 inches.
40 ditto in two tiers, in blocks of four.
216 Hammock hooks.
60 Hooks for swinging trays.
Fir quartering between iron beams to receive ditto.
8 Hooks for cots.
2 Iron clasps round pillars for cots.
40 Feet fir quartering, 3 feet by 3 feet, stanchions for ditto.
14 Elm cleats, with nails, for ditto.
10 Racks, under bed places, for knapsacks.
370 Knapsack hooks.
Mess-table in midships.
Benches in ditto, portable.
Numbering berths.

Middle or Centre Compartment.

Dimensions:—Height, 8 feet from deck to deck; breadth, 38 feet; length, 72 feet 6 inches.
4 Sleeping berths in two tiers, 6 feet by 2 feet 3 inches, with wood bottoms.

4 Hospital sleeping berths, 6 feet 3 inches by 2 feet 6 inches, in two heights
72 Ditto, in blocks of four, galvanized iron bottoms.
Additional depth of head boards and parting boards.
98 Hammock hooks.
76 Hooks for swinging trays.
296 Knapsack hooks.
Mess tables, 18-inch, with fixed benches along ship's side, the whole length.
Arm-stands against bulkhead.

After Compartment.

Dimensions :—Height, 8 feet; breadth, 37 feet forward, 24 feet aft; length, 67 feet 9 inches.
18 Hospital berths in one tier, 6 feet 3 inches by 2 feet 6 inches.
56 ditto in two tiers, in blocks of four.
Additional depth of head boards and parting boards.
456 Hammock hooks.
92 Hooks for swinging trays.
Fir quarter, 2 feet by 3 feet, to receive ditto.
440 Knapsack hooks.
18 Racks under bed places for knapsacks.
Mess table in midships, 36 feet by 2 feet 3 inches.
72 Benches in ditto.
56 Feet fir quarter, 3 feet by 3 feet, stanchions for cots.
16 Elm cleats and nails.
12 Hooks for cots.
Numbering berths.
1-inch Bulkhead, with sliding door, to inclose space for baggage room on port side.
1-inch Bulkhead, partly lowered on starboard side, to inclose women and children.
Canvas screens to hatchway.
Additional sleeping berths, in two heights, 6 feet by 3 feet, with wooden bottom, for women and children, 12 persons.
1-inch Bulkhead, to part off space for women; additional mess tables and benches for women.
18 Knapsack hooks.
Bench to women's berths.

Orlop Deck.

Grating bulkhead to inclose storeroom; and
Knapsack room.
Knapsack racks.
Clothes racks.
Bottle racks.
Dresser with lockers underneath, tinned.
Drawers under ditto.
Issuing dresser, with drawers underneath, with flap over doorway.
Hooks in deck.
Door hung.
Flap hung.

After Hold.

Laying flat and building magazine.
Stretchers, with slings, complete.
Palmer's patent candles, in two cases.
Knapsack hooks and nails, in two cases.
Elm cleats for stanchions, and nails.
Sheet zinc, in case.
Zinc tubing, in two cases.
Zinc nails.
Galvanized iron bed-bottoms.

Spare stanchions for sleeping berths, 3 feet by 3 feet.
Ditto side boards.
Roberts' stove, with stand and funnel, in case.
Step ladders.
Hand rails.
Swinging trays.
Handles and lanyards.
Iron rings to screw to stanchion for chamber utensils.
Screws for ditto.

SCHEDULE of Fittings put up and supplied to Steam-ship "Melbourne," Regular Transport, at Deptford, December, 1859, January, 1860.

UPPER DECK.

6 Privies, double troughs, lined with lead.
1 Urinal, lined with lead.
26 Air-tubes, fitted in deck, supplied from Transport Store.
4 Air-funnels lengthened, supplied from ditto.
4 Ditto, fitted.
104 Screw-bolts and nuts for air-tubes.
Screws for air-funnels.
6 Wooden trunks to air-funnels and tubes, fitted and caulked.
Zinc and iron tubing; two cast-iron flanges, to convey air from between decks to cooking apparatus.
Cooking apparatus, oven, boiler, &c.
2 Hearths with boilers.
Smiths' altering and shifting doors, iron galley.
Stands for boilers, lined with iron.
Materials for galley to be put up in the country.
Butchery, built of 1-inch board, ploughed and tongued.
Top 1½-inch deal, grooved, and tongued, and caulked.
Sliding door with padlock; sliding shutters, fitted with perforated zinc; hooks.
1 large chopping-block.
Shelves and latrine, water end and front.
Drying-room, built as butchery.
Lined with zinc.
1 Sliding door, with lock.
2 Sliding shutters.
Ablution room; sides, ends, and back of 1-inch deal, ploughed and tongued; tops, 1½-inch deal, grooved and tongued.
1 Sliding door, with padlock.
1 Hanging ditto, and end to shift with five bolts.
3 Sliding shutters.
Trough in ditto, 8 feet long, 1 foot 6 inches wide, lined with lead, and 2-inch pipe to scupper.
Grating on deck.
Washing room on opposite side, same size as ablution room, fitted in the same way, except leaded trough.
Bakery, built opposite drying room and butchery, with 1 sliding door and 2 sliding shutters.
Dresser and shelves in ditto, and iron screw hooks.
All the houses on deck painted.
Repairing water-closets for officers on quarter-deck, cutting perforations in doors.
Enlarging berths in poop.
1 Surgeon's table in Purveyor's cabin.
Sleeping berths and furniture in mate's cabin removed for Agent, and fitted in another cabin.

Taking down and refitting sleeping berth.
Wash-hand stand in Principal Medical Officer's cabin; two cot-hooks.
Enlarging sleeping berths for sick officers.
Bulkhead, with perforated zinc, in after cabin.
2 Sleeping berths in ditto.
1 Washstand with lid.
2 Cot-hooks.
Altering door to cabin and hanging door.
Zinc over ditto; iron rim lock, brass furniture.
Fitting zinc over skylight in way of air funnels.
Alterations in Agent's cabin.
Labels for cabin doors.

Orlop Deck.

216 Arm racks.
Large knapsack rack near ditto.
Bulkhead in midships.
Shelf for knives, &c., with partitions.
Scantling on deck to secure plate baskets.
Plate baskets lined with tin.
Grating bulkhead for inclosure of storeroom.
1 Door to ditto, with lock.
1 Hanging flap.
1 Surgeon's hanging table.
Large lockers in storeroom, lined with tin, fitted with drawers underneath, and dresser top.
Issuing dresser, with shelves and drawers under ditto.
Clothes racks over dresser, along ship's side, in storeroom, and against grating bulkhead.
108 Feet 4-inch zinc tubing.
396 Feet ditto, in two cases, for use of ships on station.
12 Galvanized iron bed bottoms.
12 Spare 3-inch fir stanchions for sleeping berths.
1 Deal ditto, side board, ditto.

BETWEEN DECK.

Main or Lower Deck.

Dimensions:—Length, 208 feet; breadth, 35½ feet; height, from deck to deck, 6 feet 4 inches.

20 Sleeping berths forward, for orderlies, in two heights, with galvanized iron bottoms. 12 Built round bow.
120 Hospital berths in one height, for sick, with galvanized bottoms, 6 feet 3 inches by 2 feet 6 inches. Additional parting-boards and head-boards to all the berths built on blocks
1,078 Hammock hooks.
120 Swinging trays.
120 Handles and lanyards.
120 Knapsack racks under sleeping berths.
120 Galvanized iron rings to screw to stanchions, for chamber utensils.
Screws for ditto.
240 Hooks in upper deck for tables and handles.
Numbering berths, 3 numbers each.
Knapsack hooks.
8 Lifting mess-tables, 12 feet long.
16 Benches ditto ditto.
Iron work to ditto.
Midship mess table, forward and aft.
Benches ditto.
20 Small fixed tables in way of ports, each 3 feet 6 inches by 1 foot 6 inches.

Hatchway guards to three hatchways.
Bulkhead between decks, right aft, with perforated zinc.
Surgeon's table, for serjeant.
3 Step-ladders and oak steps, extra size.
2 Iron hand-rails.
Bulkhead between decks to separate space for cargo.

Surgery.

1½-Inch platform laid over grating on lower deck, lined with ¾-inch board.
Enclosed with 1-inch ploughed and tongued bulkhead, fitted with folding doors, bolts and locks.
Perforated zinc fitted in upper parts of sides and ends, instead of louvre boards, first fitted.
Water table and brass hinges, fitted to top of skylight.
Large dresser, with drawers under ditto, fitted at one end of surgery.
Shelves for jars and bottles, fitted at end and sides.
2 Swinging candle lamps.
1 Galvanized slop-pail.
1 Washstand, plug, basin.
1 Soap-dish.
Iron ring fitted for basin, and shelf for soap dish.
4 Cot-hooks.
Iron stays and staples for skylight.
6 Brass hooks for towels.
1 Amputating table.
Painting surgery inside and out.
2 Water cans.
Cart for water and slop-pail, with compartments.
2 Zinc water bottles.
1 Slop-pail, with wash-hand basin and plug.
4 Stretchers, with slings complete.
12 Dozen lbs. Palmer's patent candles, in two cases.
200 Knapsack hooks and nails, in case.
100 Elm stanchion cleats and nails, in case.
50 Square yards sheet zinc, in case.
14 lbs. zinc nails.

PRINTED BY HARRISON AND SONS, ST. MARTIN'S LANE, W. C.

ARMY (MEDICAL STATISTICS, &c.)

RETURN (in part) to an Address of the Honourable The House of Commons, dated 10 June 1861 ;—*for,*

"COPY of Report of the Committee on the Preparation of Army Medical Statistics, &c., and of the First Annual Report of the Statistical Branch of the Army Medical Department."

War Office, 20 June 1861.

THOMAS GEORGE BARING.

Note.—The First Annual Report of the Statistical Branch of the Army Medical Department will be presented to the House by Command of Her Majesty.

(*Mr. Baring.*)

Ordered, by The House of Commons, *to be Printed,* 21 *June* 1861.

REPORT OF THE COMMITTEE

ON THE PREPARATION OF

ARMY MEDICAL STATISTICS,

AND ON THE

DUTIES TO BE PERFORMED BY THE STATISTICAL BRANCH OF THE ARMY MEDICAL DEPARTMENT.

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INSTRUCTIONS

TO THE

COMMITTEE ON ARMY MEDICAL STATISTICS.

War Office, Pall Mall, S. W.
10 October 1857.

Sir

With reference to your Report on the Organisation, Government, and Direction of the Medical Department of Her Majesty's Army, and particularly to that portion of it which treats of the preparation of *Statistics*, I shall be much obliged to you to undertake the additional task of framing, for my consideration, such regulations as you may think desirable on the different points referred to in the enclosed memorandum.

I should wish to be associated with you in this task—
Colonel Sir A. Tulloch,
Dr. Farr.

I have, &c.
Panmure.

To the
Right Hon. Sidney Herbert, M.P.

(Enclosure in Lord Panmure's Letter.)

MEMORANDUM of the Points to which Lord Panmure requests that Mr. Herbert's attention and that of the other Members of the Committee may be directed, in the Suggestions for the preparation of Army Statistics.

Mr. Herbert,
Colonel Sir A. Tulloch,
Dr. Farr,

YOU will examine the Statistical Forms now in use in the service.

You will prepare forms similar to those used by the Registrar General's Department, and will draw up forms for

weekly states, from which the general forms can be compiled. You will arrange for the periodical reporting of mortality to the Registrar General, for registry and publication; and you will arrange the details of the duties of the Statistical Branch of the Army Medical Department, bearing in mind that the object which Her Majesty's Government have in view is to obtain the means of ready and accurate comparison of the health of the troops at different periods, at different stations, and in different barracks or quarters, and of comparison with the sickness and mortality in civil life, to enable them at all times to take immediate measures to check or counteract whatever may injuriously affect the health of the troops, whether in peace or war.

REPORT

TO

HER MAJESTY'S PRINCIPAL SECRETARY OF STATE FOR WAR,
&c. &c. &c.

In October last, a Committee, of which we have the honour to be members, was appointed by the Secretary of State for War to draw up a programme of the duties to be performed by the Statistical Branch of the Army Medical Department. Bearing in mind the objects which Her Majesty's Government thereby hope to secure, we were instructed to devise measures for determining accurately the health of the Army at different periods, and in different circumstances, so as to enable Her Majesty's Government "to take immediate measures to check or counteract whatever may injuriously affect the health of the troops, whether in peace or war."

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We were further instructed that the statistics of the Army must be drawn up so as to admit of ready comparison with the corresponding statistics of the civil population; the statistics of national armies being, in fact, part of the general statistics of every country.

To aid us in this undertaking we have consulted the evidence of the Army Medical Officers and other witnesses who were examined before the Commission on the Sanitary Condition of the Army; we have received communications and suggestions from gentlemen who are practically acquainted with the subject; we have to thank Director-General Alexander, C.B., Deputy Inspector General Taylor, C.B., Surgeon-Major Brown, Dr. Maclachlan, and Dr. Balfour, for communications on several branches of the inquiry; we have procured copies of the forms which are now in use in the Medical Department of the Army; we have ascertained how they are filled up in various quarters; and we have compared them with the French and the Belgian forms.

The Army Medical Department has in its possession a long series of medical papers of great value, but has never been able to publish officially any digest of these reports, nor any summary of the various returns.

The late Dr. Marshall, Dr. Balfour, and a member of your Committee (Sir Alexander Tulloch), have, however, at distant intervals, published reports under the authority of the Secretary at War, grounded on that information and on returns of the sickness, mortality, and invaliding received at the War Office from foreign stations, which have thus established the practical value of such information. We have had these reports before us, and also the various reports of the Registrar General on the fatal diseases of the civil population.

We might now enumerate several defects in many of the returns, point out the uselessness of others, and dwell on the inadequacy of the means at the disposal of the Army Medical Department for analysing the information, and of thus bringing periodically before the minds of the military authorities of the country, and of Her Majesty's Government, the extent of loss which the Army sustains from disease, or rather from its several causes, many of which admit of removal, but are ever liable to recur unless the liveliest watchfulness pervade every branch of the service. Instead of undertaking such criticism, we shall proceed at once to state, after much deliberation, what facts we think are worthy of record, how the records should be made, how they should be preserved, how they should be analysed, and how their results should be published. It will be seen that by a few alterations, and by some extension of the forms which are now in partial use, the records of the Medical Department of the Army may, by a branch of the Medical Department, be put together so as to yield the most important results. We must premise that in the recommendation of a complete set of forms and returns, which we are about to make, we have adopted unaltered, or adopted with such alterations as appear to us useful, the forms and returns now in use, and we have suggested new ones where we are satisfied that a deficiency exists, as the statistical records of the Army should show precisely, not only the extent of its losses at all times and in all circumstances, but also their immediate causes.

The British Army consists of Cavalry, Foot Guards, Infantry of the Line, Colonial Corps, Artillery, and Engineers, and the embodied Militia. It is organised in regiments and corps

corps of various kinds, and is stationed in various parts of the United Kingdom, in the British colonies, in the East Indies, and in China. Notwithstanding this diversity, all the statistics should evidently, in principle, be on the same plan, though slight deviations in detail may be permitted in practice.

Thus it would be desirable to bring the officers under the same forms of record and return as the non-commissioned officers and men; but the way in which officers join the Army, their treatment in sickness, and the circumstances under which they leave the Army, are so special, that we shall consider them apart, and shall first treat of the statistics of the non-commissioned officers and men.

I.—Recruiting.

Recruits are raised in *two ways* in the United Kingdom :—

1. The recruit is examined by the *regimental medical officer*, at the head-quarters of the regiment, and, if found fit, is at once taken on the strength. The recruits of regiments serving abroad are also examined, and, if fit, received at their depôts in the United Kingdom.

2. Recruiting parties are sent from regiments to the nine recruiting districts of the United Kingdom, where they are under the command of inspecting field officers. They are stationed in the towns and villages, and the recruits enlisted at out-stations undergo a *primary examination* by the nearest military medical officer, or, if there is no such officer within reach, by a civil surgeon. These recruits, if pronounced fit for service, are attested, go to the staff surgeon of the district, and, after his final approval, join the regiment. At these *secondary examinations* by the staff surgeons large numbers are rejected. The recruits at the head-quarters of the recruiting districts (London, Bristol, York, Liverpool, Glasgow, Edinburgh, Cork, Dublin, and Belfast) are examined at once by the staff surgeon, and are pronounced fit or unfit for service by him.*

1. *Records.*

Each staff surgeon of a recruiting district will be supplied annually with a book, entitled the "Register of Recruits," for

* *See* Paper on Recruiting Statistics, by Dr. Balfour, Appendix lxvi. to Report on the Sanitary Condition of the Army.

for the registry of all the recruits who are presented to him for medical examination within the year.

In recruiting the British Army the object is to enlist a body of healthy athletic men. Sick men do not generally offer themselves as recruits; yet, for various reasons, great numbers of unfit men appear before the medical officers for examination, and are rejected. At this examination certain facts are determined precisely, and deserve to be recorded, as well with reference to the rejected as to the accepted recruits.

See Form (A.) (which was proposed by Dr. Balfour), in Appendix.

The "Register of Recruits" should contain on the face of it evidence of the fitness or unfitness of the recruit for the service, and some information about his previous condition. Thus in it should be specified his

Name.

Birthplace.—Parish, county, country.

See instructions on the nomenclature of occupations, in Appendix Form (B.)

Previous Occupation.—Distinguishing men from masters.

Marks—of vaccination, or small-pox.

Age.—Years completed at last birthday.

Circumference of Chest (in inches, over the nipple).

Height.—In inches.

Weight without Clothes.—In pounds avoirdupois.

Education.—Distinguishing those who—

(1) are well educated;
(2) write;
(3) read only;
(4) cannot read.

Diseases, Defects, and Causes of Rejection.—The results should be invariably stated—

(1) Of all the *Primary Inspections;*
(2) Of all the *Secondary Inspections;*
(3) Of all the inspections of men transferred from Militia.

The recruit should be distinctly declared "fit" or "unfit" for service.

This branch of the statistics of the British Army has hitherto been defective. A certain number of the recruits have been first examined by surgeons at detached stations, or by the regimental surgeons, and of the results no account has been kept, so that the records do not show the proportion rejected in each district out of 100 men who presented themselves for examination. The returns sometimes distinguished

tinguished the number finally rejected by the staff surgeon of the recruiting district out of those already declared "fit" by other surgeons on a primary examination; but in other cases the numbers declared "unfit" at the primary and secondary examinations were given indiscriminately.

The regimental and other military practitioners examining recruits will be provided with forms similar to those supplied to the district staff surgeon, which they are to fill up and forward at the end of every year to the Director General in Council; and recruiting parties will be supplied with forms, on the plan of the "Medical Certificate Book," which are to be filled up and returned to the recruiting party by the civil practitioners. These forms will be forwarded monthly, with their accounts and vouchers, by the recruiting party to the War Office, whence they will be transmitted to the Director General. The records of the recruiting service will thus be complete. The recruiting officer should be held responsible for procuring these statements from the civil surgeons, who will fill up the forms before they are paid their fees.

2. *Reports.*

An annual report of the results of his inspections of recruits will be prepared by the staff surgeon of each recruiting district.

The general report of the statistical branch will present the results of the recruiting service in a distinct chapter of the Annual Statistical Report.

The French conscription reports throw great light on the condition of the population of the several parts of the empire, as a determined proportion of all who attain the age of 20 in the year preceding the year of ballot come indiscriminately under review. From the English recruiting returns spontaneous selection eliminates numbers, varying in different localities, so that the recruits are not always fair samples of the population, and will never precisely represent the relative condition of the people of the several counties of the United Kingdom.* The conditions under which the recruit is accepted or rejected vary at different periods, according as the demand for recruits varies. Nor is

* As one of the disturbing elements, may be mentioned the practice on the part of some recruits of likely appearance, but having concealed disabilities, of repeatedly enlisting, with a view of obtaining enlistment money, or being supported till after medical rejection.

is there the same uniformity of age as in countries where the army is levied by conscription, the age of recruits varying from 18 to 30, though the mass are probably under 23. Still, if these and other disturbing elements be carefully examined and allowed for, we are of opinion that the recruiting returns may throw some light on the causes which tend to disqualify young men for military service. They will also supply the materials for many scientific deductions.

The Report will show the number of recruits raised for each regiment, battalion, or corps, distinguishing from the recruits the men transferred from the militia.

The Report might show, among other things, the number of men born in the several counties declared "fit" and "unfit" for the service; also the number who had had smallpox or cowpox.

The number recruited in each year of age, dating the age always from the last birthday, will be given, as well as the stature and weight of men of each age; the number of men of different statures, graduated on a scale of inches, might also be stated. The weight of men in pounds, divided by their height in inches, will show their relative degrees of stoutness, which may be further compared with the circumference of the chest, also expressed in *inches*. Stature is generally expressed in *feet* and *inches*; but, for statistical purposes, one *unit*—the *inch*—will be more convenient than two, and will serve for measuring both the stature and the circumference of the chest. If the serjeants take the measures, they may be instructed to add the *number of inches* above five feet to *sixty*: thus a man of five feet seven inches would be 67 inches in height. Should the *spirometer* be used as a test of the capacity of the chest, and the *dynamometer* or other test of muscular power, the facts determined by these measures should also be discussed.

The *causes* of *rejection* should be classified under different heads, so as to show the relative proportions rejected from each cause, among the recruits from each recruiting district, from each county, and from town and country respectively.

See Form (C.), Appendix.

We recommend, for the use of the staff surgeons in the recruiting districts, the classification of the diseases and defects of recruits, given in the Appendix.

II.—Discharging and Invaliding: Pensioners.

Until the year 1847, soldiers were enlisted for life; but they were generally invalided, as it was called, after 21 years' service

service in the Infantry, and 24 years' service in the Cavalry. It being necessary for this purpose to assign some disability to justify the discharge, the ingenuity of the medical officer was often taxed to find symptoms of some ailment, and their reports must not, therefore, be invariably received as descriptive of the real state of the soldier's health. This source of error will, however, cease under the operation of the Limited Enlistment Act. By that Act, soldiers enlisted since 1847 can demand their discharge in the Infantry after *ten years*' service, and in the Cavalry and Artillery after 12; and even in case of public emergency it can be refused for only two years; or they can re-enlist for 11 and 12 years respectively, after which they become entitled to a pension, on the completion of 21 or 24 years' service. This is the natural, but not the most common, termination of the soldier's career.* He can generally obtain the indulgence of a discharge by purchase, or a free discharge after certain periods of service, and under certain conditions of good conduct, or with a view to settling in the colonies. Occasionally men are discharged on reduction of the establishment, or on account of not being likely to make efficient soldiers; a few are also discharged with ignominy, and some quit the ranks by promotion to commissions. The chief ground of discharge, however, is infirmity, disease, or disability from wounds or injuries.

Considerations of economy, on the sudden cessation of hostilities in which we may have been engaged, lead to frequent and extensive reductions in the establishment, when disabilities, which would not in ordinary times be acknowledged to be such, are admitted in the case of those whom it has become an object to pension, with a view to reduce the numbers of the army to the new peace establishment.

We mention these facts in order to show what erroneous conclusions may be drawn from statistics by persons ignorant of, and therefore not allowing for, these varying circumstances.

When

* Mr. Moorhead, in his evidence before the Sanitary Commission, stated that, in 1855, about 500 men were discharged on the completion of their period of 21 (or 24) years' service (Evid. 6016). For the 10 years ending 1854, the average number that came annually before the Out-Pension Commissioners was 4,000. In 1855, of 5,155 examined, 3,217 were examined at Chatham; 336 (the Household troops) at Chelsea; 280 at Kilmainham; 463 artillerymen at Woolwich; 237 absent upon dispensing authority; 117 abroad, to reside there; and 505, negroes and others, of whom no particulars are given by him (Evid. 6004).

When a soldier is proposed for discharge, on account of unfitness for service, by the commanding officer of a corps, he is inspected by a general officer, and by a superior medical officer, in consultation with the regimental surgeon. The majority of the soldiers to be discharged, and nearly all the invalids sent from abroad, go to Chatham, where they are under the observation of the principal medical officer, and are finally inspected by the physician of Chelsea Hospital, who reports to the Commissioners for their guidance in fixing the amount of pension.*

The term "invalid" strictly designates those soldiers who are discharged in consequence of infirmity, diseases, or wounds; but in the army many cases are classified under that head to which the term is not strictly applicable. For statistical purposes, it is important that the health of the different classes of invalids, and of men who are discharged in any other character, should be accurately determined. Consequently, as all the recruits who join the regiment are examined, all the soldiers who leave the regiment, no matter on what ground, should appear before the regimental surgeon, and be examined, with a view to determine whether they are in sound health, or whether they are suffering from any infirmity or disease.

From the Medical Histories Folio, which will presently be described, the following particulars will be obtained:—

1. The regimental number of the soldier.
2. Rank and name, and whether married (M.)
3. Age.
4. Service. Period in years—
   (*a*) At home.
   (*b*) On each foreign station.
5. State of health when sent home for discharge, and ground for so sending him home.
   (*a*) Diseases by which he is affected.
   (*b*) Wounds—nature; part; in what action.
   (*c*) Other causes.
6. Date and station of regiment when sent home for discharge.

If an invalid on his way from abroad to the Invalid Depôt, or

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* *See* Dr. Maclachlan's evidence, 6059, &c., in Report of Commissioners on Sanitary State of Army.

or afterwards, recover his health, and join the depôt of his regiment, the principal medical officer of the Invalid Depôt will communicate the fact to the surgeon of the regiment, who will insert the information in the Admission and Discharge Book.

The regimental surgeon will, in a special section of his annual report, state the number of non-commissioned officers and privates discharged from, or leaving, his regiment, under different heads :—(1), Invalided for disease or infirmity : (2), Invalided for wounds ; (3), Discharged for other reasons.

The numbers of each class of men suffering from different kinds of diseases, wounds, and infirmities, will be distinguished. *See* Form(Appendix

The numbers discharged in each quinquennial period of age (15–20, 20–25, &c.), and in each quinquennial period of service, will be distinguished, taking into account the classes already enumerated.

The strength on January 1st, *plus* the recruits of the year, *minus* the leaving and the dead in the year, will *equal* the strength of the regiment on January 1st of the year following.

Invalids and Invalid Depôts.

Where soldiers are invalided on the ground of unfitness to serve, unless the unfitness is very evident, they undergo a definitive examination at the Invalid Depôt, by the principal medical officer, who confirms or corrects the report of the regimental surgeon. The invalid in England, if he has claims to pension, is finally visited by the physician to the Chelsea Hospital Commissioners.

The annexed form of register has been drawn up by Deputy Inspector General J. R. Taylor, C. B., the present Principal Medical Officer of the Chatham Invalid Depôt ; and we recommend it, with two additional columns, one for the record of the opinion of the Chelsea Hospital Physician, and the other showing how the invalid is finally disposed of.* The same form may be used at Kilmainham and at Chelsea. *See* Form(Appendix

An *Annual Report* on the results of the examinations at the Invalid Depôts will be drawn up conjointly by the principal medical officer of each depôt, and by the physician

* Dr. Maclachlan also favoured us with a similar form.

sician of the Chelsea Commissioners. It will be published with his annual report by the Medical Director General.

Pensioners.

To complete the vital statistics of the Army, the numbers, the state of efficiency, and the mortality of pensioners, each year after invaliding, and at different ages, should be ascertained and reported on annually by the Military Superintendent of Out-Pensioners, if he is willing to undertake the task.

A similar report should show the numbers, efficiency, and mortality of officers on half-pay.

These reports will be printed by the Director General as sections of the Annual Medical Report.

III.—Records of Health and Sickness.

1. *Medical Histories.*

When a man has joined his regiment it is useful to record his state on entering, and the successive attacks of disease from which he suffers. The same record should show the stations at which he is or has been located, the circumstances in or by which his diseases are induced, the class of remedies which he takes, his crimes and punishments, his transfers from corps to corps, and, finally, the cause of his death or removal from the effective force of the Army; and, after he is pensioned, the date and cause of his death.

Such a record will enable the surgeon to see at a glance the previous diseases, and their possible connection with the last illness, so as to guide him in the treatment. At the end of the soldier's career of service, the surgeons can report on his wounds, his health, and other important questions, from a written document, thus rendering most important aid to the Commissioners who award the pension.

See Form (F.), Appendix.

We recommend, then, that every man on joining a regiment be carefully examined by the surgeon, who will enter certain determined particulars in a book to be entitled "Medical Histories," a leaf of which will be allotted to each man. On the first page will be his regimental number; his name; when and where he was enlisted; his birthplace (parish, county, and country); his age (last birthday); his former trade or occupation. Facts indicating his stature and physical condition, after having been carefully determined by instruments or otherwise, should be entered according

ing to the prescribed form. A surgeon having at his disposal a spirometer and a dynamometer will find them of use in enabling him to determine the condition and strength of the man, not only on his joining the regiment, but in different circumstances; the indications of these instruments will be recorded at first, as well as the pulse and other particulars, after several trials, so as to determine the man's normal state.

Whenever the soldier has an attack of sickness, his case will be first entered in the Admission and Discharge Book, to which we shall presently advert; and when this is done, the surgeon, turning to the man's "Medical History," will enter the date of attack, the disease, and the circumstances in or by which the disease was induced. He will subsequently add the date of recovery or of death, as well as the duration of the illness.

Whenever a man in the service is transferred from one regiment or battalion to another, to the depôt companies, or to the general hospital, the sheet of his "Medical History" should be sent with him.

When a soldier is discharged the service from any cause whatever, his "Medical History" must be forwarded to the Army Medical Board, to be kept regimentally in the Statistical Department.

Every soldier before he is discharged from the regiment will be finally examined, and the precise state of his health, as well as the cause of his discharge, will be recorded in his "Medical History" by the regimental surgeon; the object of the "Medical History" is to follow the man from the time that he enters the army *until his death*—whenever this is practicable. Where a man is pensioned for life, this can be readily done by the aid of documents. When he is pensioned for a short term, and the term has elapsed, or when he is discharged without pension, he is generally lost sight of; and no notices of deaths occurring even within a year after discharge, can be obtained with sufficient accuracy to justify statistical deductions. Effectual arrangements will be made for getting returns of all deaths on "sick furlough." Some regiments discharge consumptive cases in greater proportion than others, which renders difficult any fair comparison between the rates of mortality.

The "Medical Histories" in the Guards have been kept by the surgeons for many years, and the books now constitute an invaluable repertory of facts. Extracts are printed in the Appendix to the Report of the Commission on the

Sanitary State of the Army; their utility is felt every day by the surgeons. Allowing for all the difficulties of service abroad, such histories can be kept equally well by the surgeons of the line.

In introducing the system into the other branches of the service, each regiment will be supplied with a screw guard-book containing 1,000 sheets, in which the names and other particulars of each man in the regiment, at a given date, will be inscribed, in the order of the regimental number. The sicknesses of a *previous date will not be entered in this book*. When a new man joins the regiment he will at once be inscribed in the book of "Medical Histories." Additional sheets will be supplied on application as wanted.

The "Medical Histories" book will remain with the regiment. It will, therefore, be a convenient repository for its brief medical annals. Under *each year*, A. D., will be recorded in a few words, on blank pages at the commencement of the book, the following particulars:

(1.) The names of the commanding officers, and the dates of their appointments.

(2.) The names of the surgeons and assistant-surgeons: the dates of their appointments.

(3.) The stations of the regiment—(of head quarters and detachments)—distinguishing dates of arrival and departure —the barracks and hospitals occupied.

(4.) The mean strength of non-commissioned officers and privates during the year; the number of recruits; the number of discharges on various grounds; the number of deaths; the number of attacks of sickness; the average number of constantly sick; the transfers to and from the regiment will also be noted.

(5.) Brief notices of any epidemic, or of any unusual exemption from sickness.

(6.) Records of any new facts; or of any discoveries which the experience of the regiment might suggest to the surgeons.

(7.) Dates of any important event connected with the medical history of the regiment.*

The "Medical Histories" will be analysed, in the Statistical Department, on a plan laid down by the head of the statistical

* The notices under these heads, 5, 6, 7, must be expressed in a few words, referring to the Annual Reports for details.

statistical branch, and approved by the Director General in Council. The records will show the order in which diseases through the periods of service succeed, and how they influence each other; whether, for example, consumption, which is so fatal in the army, is ever induced by syphilis and the collateral diseases. The remote as well as the immediate effects of climate will be elicited. Certain men, the most eligible for soldiers, are rarely ill: the records will show the character of these men, where they were born, their height, weight, chest capacity, strength, temperament. The new information will be valuable at once to the administrative departments of the army and to science.

2. *Regimental Admission and Discharge Book*—for short Records of all Cases which the Medical Officers treat, and of all Deaths within or without the Hospital.*

Every regiment or corps will have an annual Admission and Discharge Book. Sickness varies greatly in intensity, and in general no notice is taken of aches, scratches, and slight ailments; but every case of sickness of sufficient importance to deserve medical treatment, will be entered in the Admission and Discharge Book, which will contain the particulars of *every death*, even if it occur suddenly out of hospital, by accident, by suicide, or on the field of battle. When men are missed in a campaign, the circumstances should be entered in this book, which should show precisely the loss accruing to the regiment, as the information comes to the knowledge of the medical officer day by day. *See* Form (G.) Appendix.

Care should be taken that every case of sickness is duly recorded and taken into account in the regimental returns, and the dates of deaths on "sick furlough" should be recorded in the column for deaths against the entry of the disease for which the furlough was granted, in the Admission and Discharge Book.

It is a great defect in the past medical records that they do not account for all the deaths which are returned to the Adjutant General.

The Admission and Discharge Book will be of a convenient size for 1,000 entries, allow of the insertion of extra sheets, and

* This book will now be a complete annual register of cases and of deaths, whether the patients are admitted into hospital or not; as, however, the great majority of the cases will be admitted into hospital, we have retained the old names.

and be bound in a flexible cover: it will be portable. Books for 2,000 entries will be supplied to regiments on unhealthy stations. Books for 250 entries will be in store for detachments. A new book must be commenced on the *first day of every year*, and also on the day that a regiment leaves for service abroad. It will be ruled in columns for the entry of the following particulars:—

1. The *number of the case* in the book (printed).

2. The *regimental number of the soldier.*

3. His *rank* and *name.*

If a man in the regimental hospital belongs to another regiment his case will be recorded, up to a certain point, by the surgeon of that regiment, in a medical certificate, which, being left with, will be completed by the medical officers in charge. They will forward it in its completed form to the surgeon of the man's regiment. If a regiment is quartered in more than one barrack, the barrack in which the soldier sickens should also be entered in this column to enable the medical officer to determine the influence of each barrack. If the soldier is married, (M) should be written under his name.

4. *Age in years*, last birthday, at the date of attack.

5. *Actual years of service completed* on the day of admission, to be reckoned from the date of first joining the army to the day of admission.

6. *Date of Injury or of Attack of Disease.*—The moment at which a disease begins cannot be fixed, but it will always lie between some point of time when the disease is evident and another point when the patient was well. In small-pox the disease is dated from the first symptom and not from the day of the eruption. The date of origin in each disease will be defined in an instruction by the Medical Director General in Council. In the case of infectious diseases, the date of known infection may also be written under the date of attack as above defined. This column is not in the old Admission and Discharge Book, but it is evidently necessary, as the sick do not always enter the regimental hospital, and never enter the general hospital on the day of attack.

7. *Date of Admission into Hospital.*

8. *Date of Discharge from Regimental Hospital.*

9. *Date of Recovery or of Death.*—When a soldier dies on

on the field, or anywhere out of hospital, the particular *place* of death, if known, should be carefully recorded.

10. *Names of Diseases Primary and Secondary.*—Diseases should be entered in the order of their occurrence; and in doubtful cases, the surgeons should not name the disease until its character becomes clear. The names in the classified nomenclature should be adopted, if they are applicable to the cases.

See Statist Nosology, Form (H Appendix

Wounds should be accurately described, distinguishing incised wounds or wounds by gunshot, cannon ball, and shell.

When *secondary forms* of disease supervene, their names, and, if operations are performed, their nature, must be written under the first disease.

If a mistake has been made in the diagnosis, or if the word "observatio" has been written in, the pen should be drawn through this word and through the incorrect name; and the correct name should be written below.

If a new disease, such as *erysipelas*, supervene in a hospital—on another disease, with which it has no connection—the man should be entered afresh, as it is another attack of sickness. In the original entry, the date at which the original disease, &c., is cured, will be written in the column for the date of recovery. Under no circumstances must *one persisting disease* be discharged and re-entered as a second case. Up to the present time this has been done in the army when errors of diagnosis were discovered, to which the most skilful practitioners are liable in the present state of medical science;* and also when the sick were removed from one hospital to another. The statistics of cases of sickness and of the resulting mortality were thus rendered erroneous.

When

* Dr. Parkes, the Clinical Professor of Medicine at University College Hospital, and formerly an army surgeon, makes the following remarks:—

"I have known, both in civil and military returns, the greatest errors occur when diseases were required to be named too soon, such as acute dysentery returned as diarrhœa; febrile cases, with severe pains in the limbs, as acute rheumatism; acute bronchitis, and many other diseases, as continued fever, &c."

Similar errors arise from not recording secondary and subsequent diseases. "To give one or two examples, I have known," says Dr. Parkes, "men die of abscess of the liver, whose disease was termed throughout diarrhœa; of pyæmia, the disease being called rheumatism; of acute tuberculosis, the disease being called continued fever, &c., though in all cases the real disease was known."

When sick soldiers are left behind by a regiment, or are sent to a general hospital, their cases will remain open until the regimental surgeon shall receive information (which will be supplied in the "medical certificate") of their recovery, death, or departure, when he will make the proper entry in his books.

11. *Duration of Cases.*—The duration of a case should be generally stated in days. When it commences on 4th February and terminates on 17th February, its duration should be set down as 13 days, and *not* as 14 days. The duration of the case will often differ from the term of treatment in hospital. In cases of short duration, the *time* should be expressed in *hours*, that is, in 24ths of a day, as 1-24, 2-24. Sometimes death is induced in a few minutes or a few seconds, in such cases the time, when known, will be expressed in minutes or in seconds. When a disease, such as phthisis, goes through several stages, the duration of the case will be reckoned from the commencement of the first to the end of the last stage: the duration of such of its forms as hæmoptysis and pneumothorax occurring in the course of phthisis, should be stated against those names, which will be written as secondary diseases under phthisis.

This column will facilitate the abstracts of cases, *so as to show the rate of recovery* and of *mortality* in each *period* of various diseases.

12. *State of Health when discharged from Hospital.*—It should be stated whether the soldier is convalescent, healthy, or still sick.

13. *Destination.*—Whether to duty, to a general hospital or elsewhere.

The old Admission and Discharge Book does not state whether the patient recovers his health or is discharged uncured. This is a grave defect, which is supplied in the new form. It is important also on many accounts to know the destination of the sick, particularly in war, and when general hospitals are in requisition; otherwise the statistics of a regiment become imperfect and delusive.

14. *Observations* of a miscellaneous character.—The single cause of a particular case of disease cannot often be traced with certainty; but its probable causes are to be noticed. The results of autopsies will also be very briefly stated in this column. Where the history of a disease is given at length in the Case Book, the page of the book should be here referred

referred to. Where there is any peculiarity in the treatment, it may be briefly noticed.

Such are the particulars which, we think, should be recorded in the Regimental Admission and Discharge Book. Many others, apparently interesting, may be added; but we have inserted none of which the utility is not evident. It is unnecessary, every time a soldier is sick, to repeat the facts already registered in his Medical History. And in the progress of time the Director General in Council will always be able to add columns for the record of facts which science may prove to be important.

A small book, in the form of a Cheque Book, will always be placed with the Admission and Discharge Book, in the hands of the surgeon. It will be used, when required, for the insertion of certificates of cases, either completely or incompletely entered in the Admission and Discharge Book. It will be called the "Medical Certificate Book." *See* Form Appendix

The Admission and Discharge Book of the year will contain only the cases that are entered during that year; but the book will be retained by the surgeon during two months of the year following, if any cases remain, to enable him to complete their history by recording the date of discharge or death in the proper column. At the end of the two months the book must be forwarded to the Director General, immediately after the remaining cases have been transcribed in the Medical Certificate Book, with a view, as soon as possible, to send certificates, containing the dates and circumstances of their termination, to the Director General, who will refer the certificates to the statistical branch, where the particulars not already in the book will be filled in. The termination of the cases which are entered should always be recorded in the Regimental Admission and Discharge Book of the year of entry.

When a regiment leaves any of its sick in the charge of the medical officers of other regiments, its surgeon must leave with them *medical certificates*, containing extracts of the usual particulars of the cases from the Admission and Discharge Book; and those medical officers having the men in charge must fill up the certificates and forward them to the surgeon of the regiment to which the men belong, as soon as the sick men are discharged from the hospital.

3. *Records of General Hospitals.*

See Form (K.) Appendix.

Every general hospital will keep an Admission and Discharge Book. The book will correspond with that used for regimental hospitals, but will have an additional column for the *name of the regiment* to which each patient belongs. This column will be placed immediately before the column for the man's regimental number.

The regimental surgeons will invariably transcribe from their Admission and Discharge Books the particulars of each case, on slips of the Medical Certificate Book, to be sent with the sick and wounded to the general hospital. These *medical certificates*, after having been copied in the Hospital Admission Book, must be filed at the general hospital, where all the additional particulars of the cases must be inserted, so as to fill up the blank columns; and when the cases have terminated, or the patients have been discharged, the certificates must be returned to the regimental surgeons, who will thus be able to complete the histories of the cases in their Admission and Discharge Books.

The object is to complete the entry of every case of sickness, either while the Admission Book is in the hands of the regimental surgeon, or subsequently when it is in the custody of the Director General; and for attaining it the necessary arrangements must be made.

In a lunatic asylum or a prison for soldiers, the same course will be pursued as at general hospitals.

At present great confusion arises from counting every admission into a hospital as a new case, and every discharge as a recovery, or its equivalent. If the regimental surgeons never learn the fate of the men who are sent to general hospitals, their regimental statistics become necessarily imperfect and delusive.

The Admission and Discharge Book for the general hospital will contain 600 pages, and will serve for the entry of 6,000 cases.

4. *Records of Regimental Depôts.*

The regiments on foreign service have at present 18 depôt battalions in the United Kingdom. Each detachment of a regiment in a depôt will have the *Admission and Discharge Book* left by the corps to which it belongs, or the usual

Annual

Annual Admission and Discharge Book issued; the latter will be delivered to the regimental surgeon when the men join the regiment on its return from foreign service. Each battalion will also have sheets of the "Medical Histories," in which the particulars respecting each recruit will be filled in when he joins the depôt, as well as his subsequent attacks of sickness. When a recruit joins the service companies of his regiment, his Medical History sheet will be sent with him, and will be inserted in its proper place in the book of the regiment.

Regiments on going abroad will take up a *new* Admission and Discharge Book, and will leave the old book at their depôt. They will probably leave there also some of their sick, whose cases will be entered as they terminate.

The surgeon accompanying the regiment abroad will send to the depôt *medical certificates*, detailing the particulars of the recovery or death of such sick men as have been already entered as admitted, in the book left at home, but have nevertheless been taken abroad. Thus the book left at home will contain a complete account of all the cases of sickness occurring before the regiment's departure, even when those cases terminate at sea or on a foreign station.

A new Admission and Discharge Book will be opened for the portion of each separate regiment in the depôt battalion on the 1st of January every year; and the current book will be used by the whole of the regiment on the return of its companies from service abroad.

5. *The Medical Case Book.*

Every regiment will have, as at present, a Medical Case Book, and in its pages will be entered, by the surgeon in attendance, on a plan to be laid down by the Director General in Council, descriptions of all the cases that may be considered important in an etiological, a pathological, or a therapeutical point of view.* This book will contain the

See Form
Appendi

* Dr. MacLachlan, who has had much experience in pensioning soldiers, made the following recommendation in a note addressed to the Army Sanitary Commission:—

"All serious cases, of whatsoever nature; all diseases, disabilities or injuries likely permanently to impair the efficiency of the soldier, or disqualify him for further service; all cases of ophthalmia, without exception, and all other diseases of the eyes, amaurosis, hemeralopia, cataract, &c., must be entered and fully recorded in the medical register, and the account of the case continued

the principal symptoms of each disease, and their variations in different stages. It will be ruled so as to show the day of the month and the day of the disease in separate columns; the diets and the prescriptions will be distinctly entered. The physical condition of the patient at the beginning and end of the case will be particularly described. The *post-mortem* appearances will be described in fatal cases.

The record kept in the Admission and Discharge Book will serve all statistical purposes in minor cases.

IV.—Reports.—Statistical Analysis of the Records.

The health of the Army and its losses of efficiency from sickness and death can be determined daily by comparing the recorded facts with each other, and with the mean strength of the troops. But the facts must be classified and exhibited in tabular forms before any such comparison is possible. Copies, either written or printed, must also be produced, with commentaries on the results by the heads of the sanitary and the statistical branches of the Army Medical Department, ere they can convey such useful information to Her Majesty's Government, to the Commander in Chief, to the Medical Director General, and to the Surgeons of the Army, as may enable them "to take immediate measures" for the remedy of discovered evils. Facts often require interpretation. Experience proves that a mere report averts no evils, unless it is brought directly under the notice of all those who have any means of applying remedies. Publicity is the only security against inaction. Thousands of returns and of reports lay many years useless among the records of the Army Medical Department; and only after they had been analysed, and some of their results had been published, was any great good effected.

The medical statistics of the Army will naturally be expected to show annually the cases of every kind of sickness occurring, the duration of such cases of sickness, the deaths which they occasion, the recoveries, and the number of cases of invaliding to which they lead. They will show the annual rate of mortality, and the mean number of inefficient men, year

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tinued from day to day, or at the longest interval, from week to week, according to the nature of the malady, its acuteness, severity, duration, and progress."

year by year, for the whole Army. The effect of age, and of years of service, will be determined. The effect of climate will be examined, as it affects regiments abroad, and after their return home. The statistics will be applied, so far as practicable, in the investigation of the effects of the *soil*, its composition, drainage and elevation; of the effects of *water*, pure and impure; of *meteorological phenomena*; of the *sites* and *structure* of barracks, hospitals, huts and tents; of *washing* and *cleansing* operations; of *clothing*; of *firing*; of *alcoholic drinks* in moderation and in excess; of *food*; of moral and physical *habits*; of the *contact* of bodies of men; of *work* and *exposure*; and of *encounters* in the *field of battle* or in siege operations.

It will be important to show, as far as may be practicable, the morbid effects in immediate connexion with the circumstances by which it is believed that they may be caused.

Some of the returns must be made out rapidly, so as to give, like sentinels, immediate alarm of danger. Others must be compounded of vast masses of facts, accumulated by observations on large bodies of men through long periods of time.

The statistics of the whole Army will be treated collectively to obtain general results. The analysis will then be pursued to its ultimate ramifications, so as to exhibit the sickness and deaths, not only at each station abroad and in each division of the United Kingdom, but in each regiment. An infantry battalion of the established strength, consisting of say 800 rank and file, besides non-commissioned officers and officers, a cavalry regiment of say 569 men, who are under the *same control*, are intimately associated together, and are generally placed in the same sanitary conditions at the same time. Some regiments have peculiar diseases, such as ophthalmia, which have hitherto pursued them for years. A comparison, consequently, of the different amounts of sickness and mortality in each regiment, sometimes in the same and sometimes in entirely altered circumstances, will throw much light on the causation of disease. The causes of the excessive prevalence of many of the diseases of soldiers are already known; and a comparison of regiments with each other will point out evils immediately, which the commanding officers, the medical officers, and the soldiers themselves, in a spirit of salutary emulation, will endeavour to suppress. Each regiment will strive to suffer no more from fevers, from itch, from syphilis, from catarrhs, and from the results

results of foul air, defective sewerage, want of cleanliness, and intemperance than its neighbours. The Secretary of State for War, the Commander in Chief, and the Director General, on the representation of the superior sanitary and statistical officers, will be able to enforce measures suitable to the exigencies of each battalion. The most deplorable state of a single suffering regiment might be swamped in a general return.*

For administrative purposes, therefore, certain returns must be made from *each regiment* at short regular intervals of time.

Medical

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* The Duke of Wellington frequently refers to the sanitary state of particular *regiments* in his Despatches. Thus, on July 27, 1811, he wrote to Sir Stapleton Cotton, "I am concerned to hear of the bad condition of the 13th Dragoons. I must make a movement to our left, and place the greatest part of the Army, and at least your division of Cavalry, on the other side of the Tagus; but if the 13th Dragoons are in such bad condition, they must be left behind, and we must take the 14th instead. I must take some decided step about the 13th Dragoons. It is too bad that they in particular should be so unfit for service."—"Wellington Despatches," vol. viii, p. 153. See also vol. ix, p. 234, and pp. 338–9.

"The Brigade of Guards, completely disabled by sickness, was sent to Oporto; and did not subsequently join the Army till after the battle of Victoria in June."—M'Grigor, "Trans. of Med. Chir. Soc.," p. 389.

It was in the 1st battalion of the first regiment (the Grenadier Guards) that fever was most fatal. "The deep yellow tinge of the skin was a very common occurrence in the 1st regiment, not so frequent in the Coldstreams, and very rare in the 3d regiment of Guards. All this description of patients died, with one exception."—Vol. vi, p. 406–8. "Of the 1st battalion of the Grenadier Guards, 674 men died in hospital, 280 were invalided, between September 1812 and May 24, 1814, out of 1,400 men who landed at Corunna, and 565 recruits."—"Med. Chir. Trans.," vol. vi, p. 406.

Sir James M'Grigor, who had medical charge of the Peninsular Army under the Duke of Wellington (1811–1814), makes the following sound remarks:—

"The efficiency of an Army must ever depend upon the state of health of the corps which compose it, and no *regiment* will be ever found healthy when the internal economy is bad. It is a trite but true observation, that a good Commanding Officer will generally have a healthy and effective *regiment*. * * * Wherever there was much attention paid to the discipline, and exercise of the men; where they were well fed, personal cleanliness, as well as of their quarters, kept up; the men's clothing, if not new, always kept in repair, and the men regularly messed, that regiment was almost invariably found healthy. The temperance, steadiness, and regular habits of the German Legion kept them always in a state of health. The first German Hussars neither lost a man nor sent one to the general hospital during the retreat from Burgos, nor till after the next campaign was opened, and when we were advancing into France."—"Sir James M'Grigor on the Diseases of the Army in the Peninsula." "Trans. of Med. Chir. Soc.," read June 20, 1815, vol. vi, p. 471.

Medical returns are now made monthly, quarterly, and annually. The interval of a *month* is too long for the most frequent of such returns. Evils can be discovered in less time: they can sometimes be stopped as soon as they are discovered. The diseases of the Army do not last so long as a month on an average. The mean duration of cases is little more than two weeks, so two sets of cases might be treated in a month. The object in all statistical returns is to show what transpires in equal periods of time. A day and a week express the same time under all circumstances, and years only differ by a day; but a month may be either twenty-eight, twenty-nine, thirty, or thirty-one days, according to circumstances. The month is no exact measure of time, and should, therefore, not be employed in statistical returns. The London weekly bills of mortality, which have been published for two centuries, have been found to answer every sanitary purpose, except in the time of *great epidemics*, when *daily returns* are required.

Quarterly returns, and annual reports, under all circumstances, should be kept up. For the monthly return we recommend that a Weekly Return, on the model of Form M. (*see* Appendix), be substituted.

We will now proceed to show how the abstracts of the records can be conveniently prepared for the press. They are necessarily more complicated than returns of deaths, and, therefore, we deemed it right to institute a series of experiments, in order that we might recommend nothing which is not practical, and does not appear to be of unquestionable utility.

1. *Weekly Report on the Health of the Army.*

The result of the last of three experiments is printed in the Appendix. On its first page are some general remarks, to which we shall again advert.

See Experimental weekly Return (M. Appendix)

To carry out the experiment, returns were procured from the Grenadier Guards (1st and 2d battalions); from all the regiments in the camp at Aldershot; and from the Royal Engineers, the East India Company's Engineers, and the three depôt battalions at Chatham.

The Table I. on the second page, contains the *strength* on the nights of February 5, and of February 12, the *sick remaining* on those nights; the numbers of *new cases of sickness* admitted during each of the two weeks ending on those nights, thus showing at a glance whether the number of sick is

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is increasing or decreasing in the whole force and in each regiment. The number of men discharged from hospital, including deaths, is shown for the last of the two weeks; and the state of the men at the time of their discharge, whether in health or otherwise, or dead. The actual stations of the regiments, and the stations from which each regiment came is shown, as both modify the condition of the men. The date of arrival is also to be given.

The subsequent Table II. shows the *several diseases* by which the sickness or deaths were caused in the whole force; and also whether the sickness from each particular disease was increasing or decreasing.

The Table III. shows the number of *new cases* of several classes of sickness, and of all the principal diseases admitted into hospital during the week from *each regiment.*

In the Table IV. are a few of the results deducible from the returns by simple calculations; such are the numbers sick from syphilis, and from all causes, to every 100 of strength in the whole force, in each station, and in each regiment. The attacks of sickness, or the rates per cent. per annum at which soldiers fall ill, and the average duration of the cases, appear in the last two columns.

Measles was introduced into the camp at Aldershot; the last Table (V.) shows its progress through different regiments. Epidemical diseases will thus be specially exhibited.

Some of the numerical results are commented on in the introductory remarks. The rate of mortality is noticed; so are the rates of the increase or decrease of sickness of various kinds in different regiments. The object in these remarks, to be written by the heads of the Statistical and Sanitary Branches, will be to show, from the returns, the actual sanitary state of the Army, what it is likely to be, and what in it is exceptional, and therefore deserving of especial attention, with a view to practical improvements.

Each regimental surgeon was requested to accompany his returns by observations explanatory of any peculiar features. They received no special instructions on the subject, and their observations have been printed, nearly as they
Pages 94-98. were written, in the last two pages of the reprint. We think that these notes are interesting, and feel persuaded that, after due reflection and practice, the notes of the surgeons of the Army and the commentaries of the Deputy Inspectors General, will be most useful. These notes, with the meteorological returns and the periodical sanitary reports, will be referred to the Chief Sanitary Officer, who will accompany them

them by any remarks which he may deem necessary. A part of the weekly return might be edited by the head of the statistical, a part by the head of the sanitary branch.

The experimental returns were received on Monday morning; they were analysed on that day, and sent with the calculated results to the printer; on Tuesday they were read and struck off; on Wednesday they were circulated by post among several persons interested in Army statistics.

If the returns are to be procured from every station of the United Kingdom, and are posted on Saturday, they will reach the Army Medical Department on Monday morning; where they can be analysed on that day, and be printed on Tuesday. The Registrar General's weekly return of deaths down to Saturday night, in London, is printed on Tuesday; and we do not think that the Army weekly return can be printed in less time without employing an unnecessarily large force.

It is right to mention, that in making the experiment to which we have referred, we received most efficient assistance and some valuable suggestions from Surgeon Major Brown, of the Grenadier Guards, Deputy Inspector General Taylor, C.B., at Chatham, and Deputy Inspector General Gibson, C.B., at Aldershot. The Registrar General had the goodness to allow the gentlemen of his department to construct the Tables, and to see them through the press.

It is possible that some labour might be diminished at the central office, were the principal medical officer at each station to make a summary in his office of the returns from each regiment under his charge, showing each regiment separately, and forward it to the central office.

We are of opinion, that on the above plan a weekly report upon the health of the Army within the United Kingdom should be printed, after examination by the Director General in Council, and that copies should be forwarded on every Wednesday to the Secretary of State for War, the Commander in Chief, the Generals in command of divisions, the Commanding Officers of regiments, the Regimental Surgeons, and the principal medical officers of the general hospitals.

It appears to us that any general publication of these returns, with the stations enumerated, might be objectionable, on the ground that it would put the Governments of other countries in possession of a return of the strength and distribution of the military forces in the United Kingdom. It is true that such information can now be pretty accurately

accurately obtained from other sources; but still we wish to guard against any danger from authorized publication; and it is right that the Secretary of State should always be able to suppress for a time the publication of any part or the whole of the return which he thinks can be of more use to an enemy than to our own army.

The experimental weekly report, a copy of which is to be found in the Appendix (Form M.), is based on the forms now in use in the Registrar General's department, to which we were by Lord Panmure's memorandum instructed to assimilate the weekly states. We recommend, therefore, the continued use of these forms for the weekly reports; but as a Committee, of which the President of the College of Physicians is chairman, has now under its consideration the whole question of medical nomenclature, in which that of classification is in a great degree involved, we recommend that for the annual and quarterly reports, which will afford the principal means of comparison with other periods, no change be made in the classification and nomenclature until that Committee shall have reported and decided on the subject, in which case the improvements suggested by it should if possible be adopted; but in case the said Committee shall fail to arrive at any conclusions, it will be the duty of the Director General in Council to make such a revision of the nomenclature and classification now in use in the Army Medical Department as may bring them into conformity with the injunction laid down in Lord Panmure's memorandum.

2. *Weekly Report on Stations Abroad.*

Each regiment or battalion should make a separate weekly return. But the weekly publication which we have described will only deal with the returns from the regiments in the United Kingdom. The weekly returns in the Colonies and in the East Indies will, in like manner, be made to the principal medical officers of the several commands; and will, under their inspection, be thrown into the form of a summary on the plan, as far as it is practicable, of the home report. In remote and inaccessible stations, where communications are difficult and expensive, the weekly report must be drawn up and sent to the head-quarters of the station when opportunity offers

3. *Quarterly Report.*

The results of the thirteen weekly returns can be summed up in a general quarterly report, to be written at home by the chief statistical and sanitary officers; who will have before them the quarterly reports of the regimental surgeons and the summary of the principal medical officers. The home quarterly report will appear within four weeks of the last week of the quarter. Abroad, the quarterly reports will be written by the principal medical officers, and a summary of them will appear as an appendix to the home report. When, from any circumstance, a corps has not made weekly returns, the surgeon must prepare the quarterly returns for the corresponding weeks.

See form for quarterly report of regimental surgeon, Form (Q.) Appendix.

4. *Annual Report.*

The surgeon of each regiment, battalion, or corresponding corps will prepare a general return, and write a brief annual report on the health history of the year, to be forwarded to the Director General within a month of the termination of the year. He will discuss the prevailing diseases; he will consider them in reference to pathology, causation, connection, results, and treatment; showing the duration and the mortality of cases under different circumstances. He will present a digest of the important cases from the case book; and occasionally give complete cases of great interest.

These regimental reports will be placed in the hands of the statistical, sanitary, and medical members of the council, who will present the substance of them in their reports. Extracts of important passages, and some entire reports of great merit, should be published in the appendix to the annual report of the Medical Director General and his Council.

If a medal were awarded to the author of the best published annual report, it would probably operate beneficially; but the most effective stimulus will be the recognition of the regimental reports in considering claims to promotion.

We shall now notice briefly some of the tables which we think should appear in every annual report prepared at the Army Medical Board.

I. A table of—(1), the *mean strength* during the year, including non-commissioned officers and men of each regi-

ment (reckoning for this purpose each battalion as a regiment); (2), the mean *number constantly sick*; (3), the number of new *attacks* of *sickness*; (4), the number of *cases* of *discharge*; (5), the number of *deaths*. The mean constant *sickness*, the attacks of sickness, the deaths to 1,000 of strength, the deaths to 1,000 cases, and the average duration of cases in days, should appear in other columns of the same great table.

The table should exhibit in different *sections*, the regiments that had remained at home during the year; the depôt battalions in the United Kingdom belonging to regiments abroad; and the regiments abroad in the several commands during a part or during the whole of the year.

The rates of mortality of regiments on the different stations at home and abroad in this table will be compared.

Similar groupings of the regiments will be made in the second and in several of the subsequent tables.

II. *Table*s of the mean number constantly *sick* from each *disease*; of the new cases of each *disease*, and of the *deaths* from each *disease*; (1), for the whole army; and (2), for the several regiments (reckoning, as before, battalions as regiments): one group of the regimental tables to show the constantly sick; another the recovered cases; a third, the sick discharged, transferred to other hospitals, sent on furlough, or invalided; the fourth, the deaths from each disease.

III. Tables of the *strength*, the *deaths*, and the annual rates of mortality per 1,000 at *quinquennial periods* of *age* — 15 and under 20, 20 and under 25, 25 and under 30, &c.; distinguishing the cavalry, guards, infantry of the line, colonial corps, militia, engineers, and artillery, at home and abroad.

IV. *Tables* of the *strength*, the *deaths*, and the *annual rates* of *mortality*, at *quinquennial periods* of *service*, in different branches of the service, will be occasionally prepared: the effects of years of *residence in different climates* will be investigated.

V. Occasional tables in the annual reports will show the *diseases occurring* and *fatal* in *different quinquennial periods* of *life*.

VI. Occasional tables will show the number of cases of disease, terminating in recovery or in death, in each of the first seven days, and in each week of their duration.

VII. Special

VII. Special tables will be constructed to show the influence of barracks, huts, and hospitals; of the soil; of the water; of the seasons; of different kinds of food, and of all the agents which affect the health of the soldier.

VIII. The effects of *treatment* on the fatality, and on the duration of diseases—will be investigated carefully. The object of treatment is to *diminish the mortality and to shorten the duration of sickness*, from any given disease; the mortality and duration of a number of cases, under any given system of treatment, can be determined by statistical methods.

V.—Statistical Branch of the Army Medical Department.

The duties of the branch will be numerous. The officers in it will procure the statistical returns and records from the regiments; they will keep the records in due order; they will prepare the abstracts and tables; and the statistical officer will write the statistical reports.

Except in actual warfare, the book of medical histories will always be kept at the head-quarters of the regiment, in the custody of the surgeon.

The admission and discharge book, which will hold the cases of a year, will be forwarded to the Director General, within two months of the end of every year; the few cases remaining when the book is sent being first copied in the medical certificate book, with a view to send the particulars of their termination to the Director General. The books will be examined and be kept in order in the statistical branch. They will be used for subsequent statistical abstracts.

We will first show how the *weekly table* can be drawn up wholly in the statistical branch, on nearly the same plan as our experimental table was made at the general register office.

First Plan. We assume that the admission and discharge book is in operation at Aldershot—for example. Some sheets, with headings similar to those of form (G.), each of which will hold the particulars of sixty cases, are placed in the hands of each of the regimental surgeons. The particulars of all the cases under treatment, at twelve o'clock on Friday night, are transcribed on one of these sheets from the admission and discharge book; and the surgeon of each regiment sends his sheet to the Deputy Inspector General, who forwards it by post on the same day,

Saturday, to the Director General. It reaches the statistical branch on Monday morning, and at once furnishes the number of sick in each regiment. The numbers sick in each regiment from each *disease* are then abstracted.

Each regimental surgeon during the next week has the new cases admitted during the week transcribed on a sheet of the same form, and on another sheet furnishes a summary, and also the completion of the cases of discharge and of death.

The regimental surgeon thus sends duplicate entries of the cases in his admission and discharge book, with remarks explanatory of any peculiar features in the return. There his labour ceases. The whole of the abstracts, as well as the calculations, are made in the statistical branch, by trained men, who thoroughly understand the work.

The new cases of each disease admitted and the cases discharged, are abstracted, so as to show the facts affecting each regiment separately. Any men of one regiment left under charge in the hospital of another regiment are classed with the sick of their own regiment.

Under this plan duplicates of the admission and discharge books of each regiment, up to the most recent date, will exist in the statistical branch; and all the labour of transcription will consist in finding the case among the admissions sent previously (on entering up the dates of recovery or death), correcting the few alterations in the diseases, inserting the duration of the case in *days*, writing (H) or (O)* in the column headed State of Health, and the destination of the patient (generally to duty).

These books will always enable the Director General in Council to turn to every particular case in every regiment.

See Forms (N.), (O.), and (P.), Appendix.

SECOND PLAN. Upon this plan the whole of the abstracts will be made by the *regimental surgeons* and their *assistants*; the tabulation and calculations will be made in the statistical branch of the Director General's Office.

In the tabular forms (N.) provided for the purpose, the numbers (1) of sick remaining on the Friday night of the previous week; (2) of new cases; (3) of cases discharged from hospital; and (4) of deaths during the preceding seven days, will be shown by ticks against *each disease* in the table. These facts will be transcribed in plain figures on a form (O.) to

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* (H.) or (O.), healthy or otherwise.

(O.) to be forwarded with the same explanatory notes as before to the Director General.

From slips of these forms laid side by side and cast across, the total cases of each kind of sickness remaining, of new cases, of cases discharged, and of cases terminating fatally in the army at home, will be derived for the weekly table; the printer can use the slips of new cases as copy.

Under the first plan the surgeons will be relieved of the labour of making the abstracts; and the whole returns will be analysed on uniform principles, under due supervision in the statistical branch, and much of the work might be done by ordinary clerks.

With a view, however, to keep down the expenditure on the statistical branch, we recommend the immediate adoption of the second plan. The abstracts for the weekly table will practically be made at the head-quarters of the regiment, by the assistant surgeon with some assistance, and the labour will be inconsiderable. The table will be carefully read by the surgeon, who will generally write the remarks on the facts.

Under this plan the principal medical officer may make and forward to the Director General in Council a summary of these abstracts, by which much labour may be saved at the central office.

The Quarterly Statistical Tables, which will be derived from the *Weekly Tables*, may be constructed, either partly at the head quarters of the regiment and partly in the statistical branch, or wholly in that branch.

At the end of the year the tables for the Annual Report will be abstracted by the surgeon from the admission and discharge book, and the number of cases of each disease, as determined by the final diagnosis before discharge, will be compared with the sum of the diseases in the quarterly tables, which will serve as a sort of check on the work.

The surgeon's annual report will deal with the number of cases entered in his admission and discharge book during the year. The surgeon will also analyse the secondary diseases, and show in what proportion and order they follow primary attacks.

It will be desirable to give, as occasion offers, to the assistant surgeons in the service opportunities of learning practically the art of making abstracts, tables, and calculations.

The surgeons of depôt battalions should, in their annual report, distinguish the soldiers of the several regiments in the depôt.

Where small detachments are scattered about, at a distance from each other, to facilitate the publication of the weekly table they may be directed to send transcripts of their cases for analysis at the central office; that is, in particular cases, the first plan may be brought into operation.

The abstracts, tables, and reports, of regimental surgeons abroad, will be put together by the principal medical officer of the station or command; and the annual admission and discharge books will be sent to the Director General with the annual reports.

Comparisons.

The head of the statistical branch will, in his annual report, carefully compare the rates of mortality and of sickness among the cavalry, infantry, colonial corps, artillery, embodied militia, and engineers; the officers and men of those corps: he will carry back these comparisons as far as may be practical through former years. He will compare the mortality of the army and navy: he will devote a special chapter to a comparison of the mortality in the army, and the mortality of men of the same ages in the civil population generally, and in the districts in which the troops are quartered, as well as in the healthiest districts of England.

He will procure information respecting the mortality and diseases of the armies of other nations. He will draw up decennial summaries of the principal tables.

VI.—Officers, Sickness and Mortality.

The weekly return will contain a statement of the number of officers in each regiment, of the number sick, and of the number admitted, discharged, and dead; but it will not be necessary, as the numbers are few, to *publish* these details *of each regiment* every week. The sickness and the mortality of officers will be shown weekly, as it affects the whole of the officers of the United Kingdom, and certain groups of them. The *annual report* will deal with the diseases and causes of death.

The cases of sickness among officers will be recorded in small special books, of the same form as the ordinary admission

sion and discharge book. A small medical case book will also be prepared for their use.

The officers' admission and discharge book will be returned annually to the Director General, with an analysis of its contents by the regimental surgeon. It will be dealt with in every respect on the same plan as the general admission and discharge book of the regiment.

VII.—Statistics of an Army in the Field.

The Director General will appoint a principal statistical officer to take charge of the medical statistics of every army in the field; with adequate assistance to enable him to compile the required reports.

In the field the portable admission and discharge book, the medical certificate book, and the medical case book will accompany the regiment; but the "medical histories book" will be left with the depôt in England, or somewhere in secure custody, until the surgeon has leisure to enter up the current facts from the portable admission and discharge book.

Measures will be taken to meet the various emergencies as they arise in every campaign.

A *daily* state will show for each regiment and corps the strength, sick, admissions, discharges to duty, and to general hospital, as well as the deaths, every day, for the use of the principal medical officer and the commanding officer.

A *weekly report* on the plan of that at home will be prepared; any part of which will be made at any time confidential by the Commander in Chief; but a complete copy must be sent at the shortest intervals to the Director General, who will forward a copy with comments to the Secretary for War.

Arrangements, already described, will be made, so as to show the sick and the deaths in the *general hospitals* or elsewhere, belonging to *each regiment*.

An elaborate and useful classification of wounds was drawn up by Deputy Inspector General Taylor, C.B., in the Crimea; he has since introduced some improvements; and we think that, with certain modifications, it may be used in the field.

Wounds in action must be invariably distinguished from accidental wounds of every kind in the admission and discharge book.

The names, &c., of all the men *killed in action*, must be entered under the proper date in the admission and dis-

charge book; so, also, must the names of all men missing, if there is good reason to believe they have been killed.

The names and the particulars of all the wounded must be entered in the admission and discharge book, and care must be taken to state in *what action* the wound was received. The nature of the wound must be briefly described, naming the *parts wounded*, and, when it can be ascertained, the weapon and the arm of the enemy by which the wound was inflicted.

The wounded must be classed so as to show—

See Forms (R.) and (S.), Appendix.

I. The number of men wounded by (1) *gunshot*, such as musket, pistol, rifle balls; (2) by cannon balls, shells, and other projectiles or missiles; also the parts wounded.

II. The *incised wounds*, such as by bayonets, swords, lances, and other cutting or stabbing hand weapons; also the parts wounded.

Of the cases so classified, it will be necessary to show subsequently how many terminate in death, complete recovery, recovery with mutilation or other injury; how many are sent to general hospitals, or home.

See Form (T.), Appendix.

The cases in which primary and secondary operations are performed must be returned separately, stating in all cases the results.

The principal statistical officer will keep the Commander in Chief informed as to the efficiency and losses, present and probable, of his own force.

The Commander in Chief of an army has sometimes the painful alternative of sacrificing a great many lives in a conflict under unfavourable circumstances, or of losing an equal or a greater number of lives slowly by disease. The statistical medical officer, from the best data that can be supplied to him, will assist in calculating the probable losses under various contingencies.*

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* The Duke of Marlborough, on October 6, 1704, referring to the siege of Landau by the King of the Romans, has the following remark:—"Our people are advancing by the sap, in order to make a lodgment on the counterscarp. This method may save *a few men*, but will cost the *more time*, and it may be *a great many more men in the end by sickness*."—*See* Despatches of Marlborough, vol. i. p. 497. *See* also Mr. Hodge's paper (Jour. Stat. Soc., vol. xix. p. 256–62), on the Casualties of Sieges. He shows that in the Peninsula the duration of English sieges was 13 days, French seiges 34 days; the casualties having been 11·3 per cent. in the English, 7·3 per cent. in the French sieges. But the writer had not the means

At the end of each campaign, a full report on the resulting diseases, wounds, deaths, invalidings, men missing, will be drawn up by the principal medical officer with the army, in conjunction with the principal sanitary and statistical officers; distinguishing the mortality of the officers and men of *each regiment* in each of the great actions, the deaths in the field, and the subsequent deaths from wounds in action.

The report will be drawn up so as to show the strength, the diseases, and the deaths, in the first, second, and third year of active service abroad, It has been observed that regiments suffer most on first joining an army in the field.

This may be the result (1) of the imperfect selection at home, and of the neglect of tests of their ability to march; (2), of the want of knowledge of the country, and the way of living in it healthily; (3), of the susceptibility to disease of some men who are gradually eliminated; (4), of the fact that a mere increase of the numbers of an army has a tendency to increase the sickness and mortality; and (5), of the fact that when two large bodies of men are mingled together, they communicate some of their diseases to each other. Thus, if a regiment (A) has measles, and is placed in barracks with a regiment (B) suffering from small-pox, the sickness will be increased for obvious reasons; so it might be with fever, dysentery, erysipelas, hospital gangrene. The sickness referrible to each of the five classes of causes will be investigated in the report.

The strength of the army in the campaign, determined week by week with the greatest accuracy possible, will be obtained from the Adjutant General; and to enable the statistical officer to calculate accurately the mortality in each battle, the force of officers, non-commissioned officers, and privates present and actually engaged, must also be supplied.

This report, with a report on the same subject by the Director General and his colleagues in Council, will be presented to the Secretary for War; and particular attention will be drawn to the practical deductions which can be derived from the history of the campaign.

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means of taking into account the sickness resulting from the elaborate approaches on the French system. The importance of this element at Sebastopol will never be forgotten, and speaks in favour of the English system, which the practice of Marlborough and Wellington sanctions. But the statistics on the plan proposed will ultimately decide the question.

VIII.—The Registration of Soldiers' Deaths.

See Form (U.), Appendix.

We have communicated with the Registrar General on this subject, and we print in the Appendix the form in which he wishes the deaths of officers and soldiers to be registered. This information will be forwarded quarterly by the Director General, as soon as practicable, after April 1, July 1, October 1, and January 1, of each year, to the Registrar General of Births, Deaths, and Marriages for England. The Registrar General will arrange the returns, keep them bound in volumes, and cause to be made an annual alphabetical index of the names; to be always accessible to the relatives and friends of soldiers.

IX.—Value of the Statistical Reports.

The reports which have been recommended by us will supersede many returns in actual use; but it is evident that the salaries in a statistical branch, now for the first time to be created, and the cost of printing will involve some additional expense. An estimate can be obtained of its amount; against which must be set off the advantages now to be enumerated.

The reports will present an exact and comprehensive view of the army. They will show, week by week, the number of effective men, and the number ineffective from each particular cause. They will supply the means of determining, methodically, the health of the army in peace and in war. Precise information on matters of such importance is necessary, and would in itself be of great value, even if disease were inevitable and irremediable.

As it is certain, however, that the mortality exceeding a determinable rate is not inevitable, but is the result of the violation of the laws of nature, the value of the proposed statistical reports is enhanced; for they will determine the extent to which the violation of those laws is carried in each particular instance.

Reports exhibiting the results of extensive observations over a wide field will serve to measure the influences of each known cause on health; and will probably lead to the discovery of new causes, both of impaired and of vigorous life. They will every year contain new contributions to the science of health, in which the whole nation is concerned.

The reports will be the means of improving the health of the army. They will contribute to diminish the army's sickness,

ness, which is attended with expense as well as suffering. For a sick army is the worst extravagance in which a nation can indulge. Through the want of the information, which the reports will supply, the exact amount of sickness in the army is not known; but according to past experience it may be inferred that at least *thirteen thousand* officers and men of the present force are habitually in the hospitals, so that to have an available strength of *one hundred and eighty-seven thousand,* the country has to maintain *two hundred thousand* men of all arms.* The *thirteen thousand* sick men in the hospitals cost as much as *thirteen thousand* men under arms. Here is a wide margin for economy.

Again, as the mortality of the army in the fifteen years, 1839–53, was at the rate of thirty-two annual deaths to every *thousand* strong, the deaths in an army of the present strength at those rates is 6,400, which is far in excess of the deaths among the same number of men of the same ages in the general population,† even after making every allowance for exposure to climate.

Sir John Pringle remarked, more than a century ago, that in actual warfare 20 or 25 per cent. of the British army, exclusive of the wounded, were left sick in hospital at the end of a campaign.‡ And of the British army in the Peninsula,

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* The total numbers of the land forces of all ranks borne on the Estimates 1858–59 are 222,874, of whom 92,739 are on the East India establishment. The actual strength is not stated; we have taken 200,000 for the purpose of the argument. The actual numbers sick greatly exceed 13,000, as no allowance is made for the Indian war, and we have taken the rate of sickness at 6·4 per cent. of the strength, or at twice 3·2 the annual rate of mortality in 1839–53.

† The mortality in England and Wales in males of the same ages as the army is at the rate of nine in 1,000. *See* Appendix to Report on the Sanitary Condition of the Army, p. 521.

‡ "At the end of it [the campaign in the Low Countries, 1746], exclusive of the wounded from the battle of Rocoux, about 1,500 of our men were in hospitals, which made at that time nearly a fourth part (25 per cent.) of the whole number. But there was nothing uncommon in the diseases, being such as regularly occur in the course of every campaign." "At the end of the campaign (1747) we had in hospital from the main body of the British troops and all detachments, exclusive of the wounded, above 4,000; which was something more than a fifth part (20 per cent.) of the whole number. But it is to be remarked that the four Zealand battalions furnished near one-half; so that when these corps went into winter quarters their sick were in proportion to the men fit for duty nearly as 4 to 1 [that is, 80 per cent. were sick]."—Sir J. Pringle on the Diseases of the Army, 3d edition, p. 54 and p. 60.

Marlborough's army was evidently in a healthier condition than that described

Peninsula, under the Duke of Wellington, during the years 1808–14, 21 per cent., or 9,300 on an average strength of 44,500 were always sick in hospital, taking one year with another.* The sick ranged from 9 to 33 per cent. of the whole force. The greatest sickness was observed on October 1, 1811. The total strength was 57,781; the number of sick was 19,088.†

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described by Sir John Pringle. He was a great administrator, and knew how to take care of his men. After the extraordinary march to the Danube, and the battle of Blenheim, he was congratulated at the close of the campaign by the King of the Romans, upon inspection at Weissenberg "on the good condition" of the troops.—Bulletin Despatches, vol. i. p. 495. In a letter to Secretary Harley, he says, "Yesterday the King of the Romans came to see our army, which was drawn out in two lines, and appeared really in very good order, much better than could have been expected at the latter end of such a campaign."—p. 494.

Lediard, who served under him, gives us a general notion of "Corporal John's" sanitary arrangements—"His camp resembled a quiet well-governed city. Cursing and swearing were seldom heard among the officers; a sot or a drunkard was the object of scorn; and the poor soldiers, many of them the refuse and dregs of the nation, became at the close of one or two campaigns tractable, civil, sensible, and *clean*, and had an air and spirit above the vulgar."—*Lediard*, vol. i., pref. p. 20, cited in "Coxe's Life of Marlborough," cap. cxviii.

No statistical records of this army were published, and the results of his practices were thus not preserved in a form to communicate instruction to generals of less genius.

* Mr. Hodge on the mortality arising from military operations.—"Stat. Soc. Journal," vol. xix. p. 269.

See also paper in the "Lancet," by Mr. Edmonds, cited in Macculloch, "Statistics of British Empire," vol. ii.

† The army in the year 1811 received a large accession of force, including some regiments which had served in the Walcheren expedition. The Duke of Wellington frequently in his despatches points out the causes of sickness in his army; and does not fail to censure the officers whenever regiments suffered through their negligence or ignorance.

In a despatch dated August 27, 1811, the following paragraph occurs:—"We have a great many officers and men sick, but none or very few seriously so. It is astonishing how easily the officers and soldiers of our army are affected by sickness, and the little care they take of themselves. In some situations also the effects of the climate are terrible. Very recently the officer commanding a brigade of artillery encamped them in one of the most unwholesome situations, and every man of them is sick." In letters of the dates of September 18–19, 1811 he describes the great sickness, particularly among the troops which had been in Walcheren (vol. viii. p. 293, pp. 302–3, edit. in 12 vols). On August 4, 1812, he remarks that "the 5th and 38th regiments, and the troops recently arrived from England, are excessively unhealthy. * * The truth is, that neither officers nor soldiers are accustomed to march. * * The commanding officers of certain regiments named are censured for neglecting to procure blankets for their men." On September 27, 1812, he says there was "no disorder among the old soldiers." "Regiments recently arrived from England or the Straits are very unhealthy, and

In the Crimea the inefficiency from sickness greatly exceeded the Peninsular standard, by which, to sustain an army of 100,000 effective soldiers, it was necessary to maintain also 26,600 sick men.* The magnitude of the expense which the country would incur by sickness on any of these scales, in actual warfare with the greatest European powers, when it might be necessary to call out *half a million* of soldiers, is incalculable.

If the statistical reports help the Secretary of State for War to reduce largely the sickness of the army in peace and in war, they will, it is plain, save thousands of pounds annually in the Estimates. At the same time they will effect a still more important saving; for they will save the lives of our soldiers.

If soldiers die in battle by hundreds, they die of disease in hospitals by thousands.†

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and the loss by death is almost confined to them. I am afraid that our soldiers are not sufficiently exercised in marching when at home or in foreign garrisons; and they become sickly as soon as they are obliged to make a march. The non-commissioned officers, and I am afraid the officers, are very bad, and they neglect to attend to the food of the soldiers; and when they first take the field they are not aware of the necessity of attending to this important point themselves;" vol. ix. p. 457. *See* also Sir James M'Grigor on Diseases of the Army. He found that the regiments which had served in Walcheren suffered most from fever, and next the regiments that had recently arrived in the Peninsula.—Trans. of Med. Chir. Soc., vol. vi. p. 403. The Duke of Wellington estimated the sick in a campaign at 10 per cent. of the strength, and with the best sanitary arrangements that can now be procured, the proportion of sick may be set at a lower figure. "We are now, as I believe the whole world is, very sickly, but in all times and in all places the sick list amounts to at least 10 men in the 100. * * * In order, therefore, to give us an efficient operating army of 30,000 men, you should send us 3,000 men soon."—Despatches, vol. v. p. 281.

* During the seven months (October 1, 1854, to April 30, 1855) the average strength of the rank and file of the infantry divisions before Sebastopol was 26,603; of whom 16,832 were effective and 9,771 were sick. To 100 serving, 58 were in hospital. Of the 37 sick in every 100, 10 were present and 27 were "absent;" that is at Scutari, and elsewhere. It is probable that a considerable number of the "absent," though counted in the sick and the strength, were dead.

† In the army of the East 2,314 men died by wounds and injuries, and 15,398 by specified diseases. The annual rate of mortality was 23 per cent.; three per cent. by wounds, and 20 by diseases.—*See* Appendix to Report of the Commission on the Sanitary Condition of the Army, pp. 524-6. *See* also the valuable paper, by Mr. Hodge, in the "Journal of the Statistical Society," vol. xix. p. 235. The early statistics of the army were imperfectly kept; but the result of Mr. Hodge's investigations may be accepted as a near approximation to the truth. The mortality of the non-commissioned

The economy of life resulting directly from the information which statistical returns supply, has been already strikingly exemplified in Jamaica; where by a better choice of stations, and by sanitary arrangements, the mortality has been reduced from 13 (in 1817–1836) to 6 per cent. per annum (in 1837–1855) on the strength.*

The sickness in the field may be reduced by carefully selecting men; by letting the men, when it is practicable, breathe purer air; by selecting the healthiest sites available for camps; by raising the men in their tents from the ground; by supplying them with purer water; by better arrangements for cleanliness, clothing, and the supply of food, and by better medical arrangements. A certain residual amount of insalubrity will nevertheless remain.

As we have shown that the excessive sickness of the army involves a large annual expense, it is evident that the diminution of that sickness will effect a great saving in peace and an enormous saving in war. For sick men are not only a loss, but an incumbrance to an army. Their numbers are negative quantities. The expense of recruiting and of invaliding soldiers would be reduced by reducing the rates of mortality. Fewer men would be required, and recruits would more readily join a healthy army. The existence of an army in the highest state of efficiency would give additional security to the country without increasing the cost; the liability to an attack would be lessened; war would be waged with more chances of success, and would sooner be brought to a close by such an army than by an army suffering from the diseases which have hitherto infested our barracks and camps.

The medical officers of the army will learn from the reports the prevailing diseases against which they have to guard.

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commissioned officers, and of the rank and file of the British army at home and abroad, in the years 1793–1815, was at the rate of 5·62, annually to every 100 of the effective strength; 0·66 being deaths from injuries in action, and 4·96 deaths from diseases or accidents.

* *See* evidence and tables by Sir A. M. Tulloch, K.C.B., in the Report of the Commission on the Sanitary State of the Army (pp. 485, 487).

In reference to these results, M. Baudin makes the following pertinent remark: "Assurément, si la statistique médicale, appliquée aux armées, avait besoin d'une justification, elle la trouverait, non seulement dans les grands problèmes scientifiques qu'elle seule est parvenue à résoudre, mais encore dans les importantes réformes administratives dont elle a eu l'honneur de provoquer l'adoption.—*Hygiène Militaire, comparée par J. Ch. M. Baudin,* Médécin de l'Etat-Major de la Première Division Militaire, p. 3.

guard. They will be able to compare the cases occurring in their own and in other regiments. By observing the development of pathological phenomena, in bodies of men under every variety of circumstances, they will accumulate the materials for induction, and will teach us to distinguish causes from coincidences. In stating principles and in giving opinions, they will have at hand tangible proofs and clear illustrations. Facts of importance are seen from all points of view by different classes of minds; by some of whom their import is sure to be correctly apprehended. The health of the army depends upon the combined action of the Secretary of State for War, of the Commander in Chief, of commanding officers, of all departments of the army, and of the private soldiers themselves. The co-operation of all ranks will be facilitated by the knowledge of the same facts. The medical officers by their reports will keep awake attention. They have much to teach in their daily experience, and while teaching they will also learn. They deserve every kind of assistance to aid them in their noble efforts to maintain the efficiency of the army, and to advance the science of medicine, of which the grand objects are the conservation and the restoration of men.

The medical officers of the army labour under some disadvantages in the prosecution of particular branches of medical science. For the study of other branches they possess extraordinary opportunities. In surgery, war affords them much practice, which a long series of English surgeons, extending from Wiseman to Guthrie, shows they have turned largely to account. But conservative medicine is the field in which they can be most useful, and most distinguished. They have masses of men similarly constituted constantly under observation; and see them exposed to every variety of circumstances, so that the effect of physical causes on health must often be striking. Pringle, Munro, Robert Jackson, Hennen, Macgrigor, Marshall, and Martin, under an imperfect system of records, produced from observations in the army a series of great hygienic works, which may worthily be placed by the side of the works of Trotter, Lind, and Blane, in the sister service. The army "Statistical Reports" have shown what can be done with better materials.

Under the system which we propose, medical officers will be able to record their observations with increased accuracy, to classify phenomena, and to discuss the relations of every order of facts. A good system of army reports will enable

enable the Army Medical Department to develop all it energies, and to distinguish itself by sanitary discoveries, which will increase the efficiency of Her Majesty's army, advance science, and be beneficial to mankind.

(signed) *Sidney Herbert.*
Alexander M. Tulloch.
London, June 1858. *William Farr.*

Memorandum.

In signing this Report, I think it right to place on record, that I am strongly of opinion the course prescribed in regard to the returns and reports referred to should be regarded merely as an indication of the manner in which the statistical duties should be conducted, provided the office establishment and the information attainable from the returns will readily admit of it, but that those to whom the working of such difficult and intricate machinery is entrusted should have full power to introduce any modifications which their experience may find to be required.

As only a limited amount of time, labour, and expense can be devoted to statistical inquiries in the army, it becomes quite as much an object to know what description of information should be avoided, or lightly touched upon, as to determine that which can safely be put forward, with the hope of beneficial results, and of deductions to which no important exception can be taken.

No funds having been hitherto devoted to statistical purposes, beyond what sufficed to pay the expense of preparing and printing the Reports presented occasionally to Parliament, it was necessary to confine these chiefly to the colonies, because there, the mortality being greatest, careful observations on the health of the troops were most required. It was there, also, that the deductions could be most relied on, as extending over large numbers of men resident in the same localities, and nearly similar with respect to the composition of the force. So far as regards the United Kingdom, it was deemed sufficient, considering the limited means available, that the sanitary details should be illustrated by the returns of a part of the force only, such as the Foot Guards and heavy cavalry, who were seldom exposed to the influence of foreign climates, or to those deranging

deranging causes arising from frequent changes of locality that were likely to affect the returns of the others.

The nomenclature of disease, being purely a professional question, I do not profess to enter upon; but in regard to the classification, I conceive it to be of the most vital importance to the practical utility of the returns and reports, that all arbitrary, or even scientific distinctions should give way to the important object of being able to place before unprofessional persons, in a concise form, which all can understand, the chief groups or classes of diseases from which our troops suffer, distinguishing those that may have been caused, or at least influenced, by the climates in which they are, or have been recently serving, as well as those which may have arisen from their own vices or habits.

The classification which has been in use since 1835 was obtained, not from any theoretical deductions, but from practical observations of the diseases which had affected the British army in every climate, and under all circumstances, for the previous 20 years. If equally extensive information, for a long period, shows that a better classification for the object in view is attainable, there can be no objections to alteration; but I wish to guard against the supposition that the fatal diseases of the civil population at home can afford any criterion for the classification of the diseases which come under treatment among troops abroad; and I should decidedly deprecate any change not founded on experience, as it might not only end in disappointment, but render the result of my own labours, and those of my coadjutors for the last 23 years, in some measure valueless as a means of comparison.

Alex. M. Tulloch.

War Office, 10 July 1858.

Letter of Right Honourable *Sidney Herbert*, M.P., to Sir *Alexander Tulloch*, in reference to the foregoing Memorandum.

49, Belgrave-square,
10 July 1858.

Dear Sir Alexander,

I have given directions that your memorandum, which I have just received, shall be appended to our report.

We were instructed to draw up a scheme of statistics to meet certain army requirements, and to enable the autho-

rities to institute comparisons between the army and the civil population in England, as regards their rates of diseases and mortality, and to compare the rates of the army itself at different periods, and in different climates and countries.

This we have endeavoured to do; as you justly say, it can be but an indication of what should be done, and there can be no doubt that practical experience in the working will point out modifications which we cannot foresee.

As regards the classification of diseases, the old military form, and the existing civil form in use at the Registrar General's Office, are perhaps equally intelligible; but to those who are habituated to them there is an advantage in having one standard classification, and the grouping of the zymotic diseases together seems to me to facilitate the application of the remedial or precautionary measures, which may be necessary from time to time.

Some labour will, no doubt, be requisite in the first instance to recast the tables of any former year or period with which comparison is to be made, but probably it will cost less to do so than annually to recast the future statistics of the army for comparison with the civil population.

Believe, me, &c.
(signed) *Sidney Herbert.*

Sir Alexander Tulloch,
K.C.B.

APPENDIX.

LIST of the PRINCIPAL FORMS of MEDICAL RECORDS and RETURNS recommended in connection with ARMY MEDICAL STATISTICS in the foregoing Report.

I.—RECRUITING.

1. Register of Recruits - - - - (Form A, pp. 56, 57.)

   This form, for the use of medical officers on the recruiting service, will be made up into books of suitable size, and the particulars relating to every recruit examined in each of the recruiting districts during the year, will be entered in it.

2. Instructions on the Nomenclature of Occupations (for the use of medical officers on the recruiting service in entering the previous occupations of recruits). (Form B, pp. 58-60.)

3. Classification of the Diseases and Defects of Recruits. (Form C, p. 61.)

   An annual return to be filled up by the staff surgeon in each recruiting district, and to be transmitted to the Director-General with the annual report of the results of recruiting in the district.

II.—DISCHARGING AND INVALIDING; PENSIONERS.

1. Classification of the Diseases and Defects of Invalids, and of Non-commissioned Officers and Men discharged from the service on any grounds - - - (Form D, p. 62.)

   A return on this form will accompany the annual report of each regimental surgeon.

2. Register of Invalids arrived at Invalid Depôt. (Form E, pp. 64, 65.)

   A book to be kept by the principal medical officer of each Invalid Depôt.

III.—Records of Health and Sickness.

1. "Medical Histories Book" - - - (Form F, pp. 66, 67.)

   The record to be kept for each regiment will be formed of loose folios in a screw guard book (in the same manner as the Regimental Defaulters' Book), and when a man is transferred from one regiment to another, his medical history folio will be sent with him; two pages will be allotted for the medical history of each man.

2. Regimental Hospital Admission and Discharge Book (for the registry of all cases of sickness, and of all deaths) - - - - - - (Form G, pp. 68, 69.)

   This book will ordinarily provide for the entry of 1,000 cases; and it will be bound up in flexible leather covers. It is intended to last only one year, and to include all admissions from 1 January to 31 December inclusive, with their results.

3. A Statistical Nosology (containing the Nomenclature of Diseases to be employed in all records, &c.) (Form H, pp. 70–78.)

   The Nosological Table is intended to secure, as far as practicable, uniformity in the names of diseases entered in the various medical records, and in all certificates, periodical returns of sickness, &c.

4. Medical Certificate Book - - - - (Form I, p. 79.)

   This book will be made up like a banker's cheque-book, and whenever a sick man is left by the regimental surgeon in the charge of the medical officers of another regiment, or is sent to a general hospital, one of the forms, filled in with such of the particulars as can then be stated, will be given to the man. On the termination of the case, the surgeon having charge of the man will complete the entry, and will then forward the form to the surgeon of the regiment to which the man belongs.

5. General Hospital Admission and Discharge Book. (Form K, pp. 80, 81.)

   This book will correspond nearly with the "Regimental Hospital Admission and Discharge Book," but will contain 600 pages, affording space for 6,000 cases.

6. Medical Case Book (for descriptions of all important cases) - - - - - - - (Form L, p. 82.)

The books for use in regimental hospitals will consist of 250 pages; larger books will be made up for general hospitals. Only the important cases will be entered, as minor cases will be sufficiently described in the Admission and Discharge Book and Medical Histories Book.

IV.—Statistical Reports.

1. Specimen of the Form of Publication of the proposed Weekly Report on the Health of the Army at Home - - - - - - - (Form M, pp. 83-98.)

This experimental return is derived from actual returns supplied by Deputy Inspector General Taylor, C.B., and Deputy Inspector General Gibson, C.B., and Surgeon Major Brown, of the Grenadier Guards, with reference to the week ending Friday (night), 12 February 1858.

[The British Army consists of 179 regiments, of 217 battalions; including *one* regiment of artillery in 14 battalions; *one* corps of Royal Engineers, and 47 regiments of embodied Militia. There are 25 depôt battalions in England belonging to the regiments abroad. Exclusive of the Artillery and Engineers, 97 regiments or battalions are in England. It is estimated that a weekly return prepared for the entire army *in the United Kingdom* would be comprised in 12 pages 8vo., and that its preparation would occupy *four clerks* during *two days* in each week.]

VI.—Statistical Branch of Army Medical Department.

1. Sheet for Abstracting and Classifying Diseases (Form N. p. 99.)

By means of this form, the different diseases, &c., as recorded in the Admission and Discharge Book, will be referred to 100 principal heads. A set of four forms will be in constant use for (1) Admissions, (2) Discharges, (3) Deaths, and (4) Cases remaining. The 13 vertical columns will contain the classified diseases of as many weeks, and at the end of the quarter the aggregate results required for the Quarterly Report will be readily obtained by casting across the numbers in the weekly columns. In the process of abstracting, each case will be represented by a mark made in the manner set forth in the Instructions.

2. Form for Weekly Numerical Return of Diseases, &c. (Form O, p. 100.)

This form will consist of three sections or slips, capable of being easily separated for office purposes, by means of perforations in the paper. The three sections will be filled up to show the results of the classification of cases in Form N just described. Section I. will contain the weekly number of cases marked against each disease in the Form N 1 (for Admission); Section II., the weekly total of the marks in Forms N 2 and N 3 (Discharges and Deaths); and Section III., the weekly total of the marks in Form N 4 (Cases remaining).

3. Form for Weekly Report of Regimental Surgeon, and for enclosing Form O - - - - (Form P, p. 101.)

This form provides for a return of the strength and stations of the regiment, with a summary of the number of Admissions, Discharges and Deaths, and Cases remaining; and space is afforded for general observations explanatory of any peculiar features in the week's return, and brief sanitary notes on the state of the regiment. The sheet (N) consisting of three sections or slips, will be folded up in this form for transmission weekly to the Director General of the Army Medical Department through the principal medical officer of the station.

4. Form for Quarterly Report of Regimental Surgeons. (Form Q, p. 101.)

This form will be filled up at the end of each quarter by the regimental surgeons for transmission, with tables exhibiting the general results of the quarter's sickness, &c., to the Director General of the Army Medical Department through the principal medical officer at each station.

VII.—Statistics of an Army in the Field.

1. Classified Return of Wounds and Injuries received in Action - - - - - - - (Form R, p. 102.)

This form will exhibit the number of *admissions* with wounds or injuries received in action or before the enemy, and of *deaths* consequent upon wounds, with reference to the projectile or weapon by which the wounds were inflicted. The form will be applicable generally where returns of wounds are required, the headings being altered according to circumstances.

2. Classified Return of Wounds and Injuries received in Action admitted into Hospital, &c. - - (Form S, p. 103.)

A form of the same nature as the preceding, but intended to show other particulars, including operations, discharges to duty, transferences to other hospitals, or to England, and numbers remaining in hospital.

3. Classified Return of Operations performed, and of Deaths following them - - - - (Form T, p. 104.)

This will be a periodical return to show the nature of the operations performed, and the number of deaths following them.

VIII.—Registration of Soldiers' Deaths.

1. Quarterly Register of Deaths - - - (Form U, p. 105.)

This register, showing the date and place of death, rank and name, age, service, and cause of death of every officer, non-commissioned officer, and man, deceased during the quarter, will be sent by the Director General of the Army Medical Department to the Registrar General for preservation and reference in the General Register Office.

Note.—The subsequent Forms are printed of the size most convenient for this Appendix. We transmit with our Report specimens of the principal Forms, printed on sheets of convenient size for actual use.

(Form A.)

REGISTER OF RECRUITS

DATE	Regiment.	NAME.	Age.	Height.	Weight.	Circumference of Chest over the Nipple.	Marks of Vaccination or Small Pox.	Place of Birth.					
								Parish and County, or Country, if abroad	England.	Ireland.	Scotland.	Br. Colonies.	Foreign Countries.
			Years.	*In.*	*Lbs.*	*In.*							

for the _____ Recruiting District.

Trade or Occupation.	State of Education.				Primary Inspection.		Secondary Inspection.		Transfers from Militia.		Causes of Rejection and Remarks.
	Well Educated.	Can Write.	Can Read only.	Cannot Read.	Fit.	Unfit.	Fit.	Unfit.	Fit.	Unfit.	

(Form B.)

PREVIOUS OCCUPATIONS OF RECRUITS.

INSTRUCTIONS for the guidance of Medical Officers in filling up the column headed "Trade or Occupation," in the *Register of Recruits* (Form A.)

[The following instructions are extracted from the regulations adopted in connexion with the Census of 1851 and the Civil Registers of Births and Deaths, in order to assist in securing uniformity and precision in the nomenclature of occupations. By recording, as far as practicable, the previous pursuits of recruits on the same principles, the medical officers will greatly facilitate the comparison of results with those relating to the civil population.]

I.—In Trades the Journeyman is to be distinguished from the Master in all cases. Examples—

Shoemaker (*Journeyman*).
Baker (*Master*).

II.—Labourers and servants are to be described according to the nature of their employment. Examples—

Agricultural Labourer.
Railway Labourer.
Dock Labourer.
Farm Servant.

"Labourer," "Porter," are always imperfect descriptions. Inquiry should be made as to whether the "Labourer" is an "agricultural," "railway," "dock," or other labourer, and the necessary addition inserted in the entry; so of porter, messenger, and all general terms. The term "Agricultural Labourer" will apply to all labourers in agriculture (except shepherds) not living in the farm-house; those living in the house of the farmer will be more correctly described as "farm servants."

III.—In the case of workers in manufactures or mines, and generally in the constructive arts, the particular *branch* of work, and the *material*, are always to be distinctly expressed. Where the trade is much subdivided, both trade and branch are to be returned thus—"*Printer—Compositor*," "*Printer—Pressman.*" Examples—

Coal Miner.
Copper Miner.
Brass Founder.
Silk Throwster.

"Pitman," "Miner," "Throwster," "Weaver," and other entries of the sort, are indefinite, and should be entered with the proper addition, as "*Iron* Miner," "*Silk* Weaver," &c.

IV. The

IV. The term Farmer should be applied only to those who have occupied land. The sons of farmers may be returned "Farmer's Sons," when not agricultural labourers, &c.

A few examples of incomplete descriptions of frequent occurrence in the Civil Registers are here inserted, together with instructions for obtaining more precise descriptions.

Incomplete Descriptions.	Instructions.
Assistant	*State the trade in which employed*; as "Linen Draper's Assistant."
Bleacher	*State the particular manufacture or material*; as "Cotton Bleacher;" "Lace Bleacher."
Burnisher	*State the material*; as "Gold Burnisher;" "Brass Burnisher."
Buttonmaker	*State the material*; as "Metal Button-maker;" "Bone Button-maker."
Carder	*State the manufacture or material*; as "Wool Carder;" "Cotton Carder."
Clerk	*No person whatever should be described as* "Clerk" *simply; but as* "Attorney's Clerk;" "Commercial Clerk," &c.
Cutter	*State the particular manufacture or trade*; as "Lace Cutter;" "Needle Cutter."
Dresser	*State the particular manufacture or material*; as "Silk Dresser;" "Worsted Dresser."
Engine-feeder Engine-hand Engine-worker Engine-driver Engineer	*State whether in connexion with a manufactory or a railway, steam-vessel,* &c.; as "Engine-Feeder at a Cotton Factory;" "Railway Engine-driver." A workman employed at an engine manufactory to be described as an "Engine-smith," and not as an "Engineer."
Factory-worker	*State the manufacture in which employed;* as "Silk Factory-worker;" "Cotton Factory-worker."
Finisher	*State the manufacture;* as "Needle Finisher;" "Lace Finisher."
Fireman	*This term should be applied only to men of the* "Fire Brigade." *A man who attends to the fire in a factory or on board a steam-vessel should be described as* "Stoker in a Steam-vessel;" "Stoker in a Silk Factory," &c.
Founder	*State the branch*; as "Brassfounder;" "Iron-founder."
Framework-knitter	*State the branch*; as "Stocking Framework-knitter."

Incomplete Descriptions.	Instructions.
Handloom-weaver	*State the manufacture*; as "Silk Handloom Weaver."
Labourer	*State the branch of labour*; as "Agricultural Labourer;" "Dock Labourer;" "Bricklayer's Labourer."
Machine-worker	*State the manufacture in which the machine is employed.*
Mechanic	*State the branch of manufacture.*
Miner	*State invariably the particular metals or minerals*; as "Iron Miner;" "Coal Miner;" "Copper Miner;" "Lead Miner;" "Tin Miner;" "Copper and Tin Miner."
Moulder	*State the particular manufacture*; as "Iron Moulder;" "Brass Moulder."
Quarrier	*State the particular material*; as "Stone Quarrier;" "Slate Quarrier."
Reeler Rover	*State the branch of manufacture*; as "Cotton Reever;" "Wool Rover."
Salesman	*State whether* "Meat Salesman;" "Cattle Salesman;" "Clothes Salesman," &c.
Servant	*State whether* "Domestic Servant;" "Farm Servant," &c.
Shopman Shopkeeper	*State the branch of business.*
Smelter	*State the particular metal*; as "Tin Smelter;" "Copper Smelter."
Smith	*State whether* "Blacksmith;" "Whitesmith;" "Enginesmith."
Spinner	*State the branch of manufacture*; as "Worsted Spinner."
Weaver	*State the branch of manufacture*; as "Silk Weaver;" "Cotton Weaver;" "Woollen Weaver;" "Flannel Weaver."
Winder	*State the branch of manufacture*; as "Silk Winder;" "Cotton Winder."

(Form C.)

CLASSIFICATION of the DISEASES and DEFECTS of RECRUITS, distinguishing those of the Men found unfit for the Service on other ground than Age and Lowness of Stature.

Class.	Order.	DISEASES AND DEFECTS.	Recruits found fit for Service.	Recruits found unfit for Service.
		TOTAL		
I.		ZYMOTIC DISEASES.		
		Syphilis		
		Other Zymotic Diseases		
II.	1.	CONSTITUTIONAL DISEASES.		
		Scrofula		
		Phthisis		
		Other Constitutional Diseases		
III.		LOCAL DISEASES.		
	1.	Dis. of Brain, Spinal Marrow, and Nerves		
		Marks of Punishment, or D.		
		Disease of Eyes and Eyelids		
		Disease of Nose and Mouth		
		Disease of Ears		
	2.	Disease of Heart		
		Disease of Arteries (Aneurism)		
		Disease of Veins, Varix		
	3.	Disease of Lungs		
		Small or Malformed Chest, and Curvature of Spine		
		Loss or decay of many Teeth		
	4.	Hernia		
		Laxity of Abdominal Rings, showing tendency to Hernia		
		Hæmorrhoids		
		Fistula in Ano		
		Other Diseases of Stomach and Intest. Tract		
		Liver Disease		
		Spleen Disease		
	5.	Diseases of the Urinary Organs		
	6.	Varicocele		
		Hydrocele		
		Other Diseases of the Genital Organs		
	7.	Muscular Tenuity		
		Debility		
		Defects of Upper Extremities		
		Defects of Lower Extremities		
		Diseases of Joints		
		Other Affections of Bones and Muscles		
	8.	Ulcers, Wounds, Cicatrices		
		Other Affections of the Cutaneous System		

CLASSIFICATION of the Diseases and Defects of Recruits, &c.—*continued.*

Class.	Order.	DISEASES AND DEFECTS.	Recruits found fit for Service.	Recruits found unfit for Service.
IV.		DEVELOPMENTAL DISEASES.		
		Weakness of Intellect		
		Malformations of Ears		
		" Nose and Mouth		
		" Chest and Spine		
		" Urin. or Gen. Organs		
V.		MUTILATIONS AND INJURIES.		
		Unsound Health, Marks of Cupping, Blistering, and Unclassed Cases		
		TOTAL Rejected		

(Form D.)

INVALIDS.

CLASSIFICATION of the DISEASES, WOUNDS, and INFIRMITIES of INVALIDS.

Class.	Order.	DISEASES AND DEFECTS.	AGES. 15.	20.	25.	30.	35.	40.	45.	50.	55.	60.
		TOTAL										
		Discharged, having no Disease or discoverable Defect										
		ZYMOTIC DISEASES.										
I.	1.	Rheumatism										
		Dysentery										
		Dysentery with Hepatic Disease										
		Other Miasmatic Diseases										
	2.	Syphilis										
		Stricture (from Gonorrhœa)										
		Other Enthetic Diseases										
	3.	Scurvy										
		Intemperance										
		Delirium Tremens										
		Other Dietic Diseases										
	4.	Parasitic Diseases										
		CONSTITUTIONAL DISEASES.										
II.	1.	Gout										
		Dropsy										
		Cancer										
		Other Diathetic Diseases										
	2.	Scrofula										
		Phthisis										
		Other Tubercular Diseases										

INVALIDS.– Classification of the Diseases, Wounds, and Infirmities of Invalids—*cont^d.*

Class.	Order.	DISEASES AND DEFECTS.	AGES. 15.	20.	25.	30.	35.	40.	45.	50.	55.	60.
		LOCAL DISEASES.										
III.	1.	Dis. of Brain, Spinal Marrow, and Nerves										
		Mania										
		Monomania										
		Dementia										
		Epilepsy										
		Paralysis										
		Moral Defects										
		Marks of Punishment, or D.										
		Disease of Eyes										
		Disease of Ears										
	2.	Disease of Heart										
		Disease of Arteries (Aneurism)										
		Disease of Veins; Varix										
	3.	Disease of Lungs										
	4.	Teeth Defective										
		Hernia										
		Laxity of Abdominal Rings										
		Hæmorrhoids										
		Fistula										
		Other Diseases of Stomach and Intest. Tract										
		Liver Disease										
		Spleen Disease										
	5.	Stricture of Urethra (not the result of Gonorrhœa)										
		Other Diseases of the Urinary Organs										
	6.	Varicocele										
		Hydrocele										
		Other Diseases of the Genital Organs										
	7.	Muscular Tenuity										
		Debility										
		Defects of Upper Extremities										
		Defects of Lower Extremities										
		Diseases of Joints										
		Other Affections of Bones and Muscles										
	8.	Ulcers										
		Other Affections of the Cutaneous System										
		DEVELOPMENTAL DISEASES.										
IV.	1.	Weakness of Intellect										
		Infirmities of Age										
		MUTILATIONS AND INJURIES.										
V.	1.	WOUNDS and FRACTURES of the HEAD										
		WOUNDS of the FACE										
		WOUNDS of the NECK										
		WOUNDS of the CHEST										
		WOUNDS of the ABDOMEN										
		WOUNDS of the BACK and SPINE										
		WOUNDS of the Perineum, Genital and Urinary Organs, not being Wounds of the Peritoneum										
		WOUNDS of the UPPER EXTREMITIES										
		WOUNDS of the LOWER EXTREMITIES										
		WOUNDS with direct injury of the LARGE ARTERIES, not being cases of compound fracture										
		WOUNDS with direct penetration or perforation of the LARGE JOINTS										
		WOUNDS with direct injury of the LARGE NERVES, not being at the same time cases of compound fracture										
		DISLOCATIONS.										

(Form E.)

REGISTER of INVALIDS

Date of Arrival.	Regiment.	RANK and NAME. (If Married write M under the Name.)	Age.	Actual Service.			Character and Number of Good Conduct Badges.	Station whence Invalided.
				Total Years.	Stations.	Period in Years.		

arrived at INVALID DEPOT.

Report of Invaliding Regimental or Staff Officer.	If requiring Hospital Treatment, Date of			Number in Medical Register.	State of Invalid and opinion as to his fitness or unfitness for further Service, as reported by the Principal Medical Officer.	Final Opinion of Medical Officer of Commissioners of Chelsea Hospital.	How Disposed of.
	Admission.	Discharge.	Death.				

(Form F.)—*For "Medical Histories Book.'*

MEDICAL HISTORY.

Regiment or Corps _____

Regimental Number _____ Name _____

Enlisted - {on / at

Birthplace - {Parish / County } Country.

Age (last Birthday)

Former Trade or Occupation

General Remarks

On his Habits and Conduct in the Service, Temperance, &c.

The results of each subsequent Examination to be recorded in all cases of transfer to other Regiments.

Height - - - - - inches.
Circumference of chest (over the nipple) - - - - inches.
Spirometer - - - - inches.
Weight - - - - - lbs.
Dynamometer - - - - lbs.

Small pox marks.
Vaccination marks.
When vaccinated.
Hair.
Pulse (regular) - - - beats.
Respiration - - - - inspirations.
Muscular development.

Rank and Dates of Promotion; also Dates of Transfer to other Regiments.	Dates of Punishment; and whether Corporal or by Imprisonment.

The above was his state when examined on _____

(Signature) _____

Station Garrison, Barrack, General Hospital, &c., with *Date of Arrival.**	Number in Admission and Discharge Book.	Date of Attack. Yr. Mo. Day.	Date of Recovery. Yr. Mo. Day.	Diseases. (*a*) Primary. (*b*) Secondary.	Duration of Diseases. Days.	Completed Years of Age.	Completed Years of Service.	Treatment. Class of Remedies.	Observations. Circumstances in or by which Disease was induced.

In addition to the record of sickness, the date of the following events should be recorded:—(1) Death and cause of death in the service. (2) Discharge on pension or temporary allowance for life or for a term of years; also of death and cause of death while on pension or temporary allowance. (3) Discharge by purchase or other cause of the kind. (4) Promotion to the rank of commissioned officer. (5) Capture, desertion, &c. *See* p. 12.

* This column should be filled up in all cases when the soldier remains any length of time at the station, even if he has no attack of sickness while there.

(Form F.)—MEDICAL HISTORY—*continued.*

Name_____ Regimental Number_____

Station, Garrison, Barrack, General Hospital, &c., with Date of *Arrival.*	No. in Admission and Discharge Book.	Date of Attack. Yr. Mo. Day.	Date of Recovery. Yr. Mo. Day.	Diseases: (*a*) Primary. (*b*) Secondary.	Duration of Diseases. Days.	Completed Years of Age.	Completed Years of Service.	Treatment: Class of Remedies.	OBSERVATIONS. Circumstances in or by which Disease was induced.

(Form G.)—*For Regimental Hospitals.*

ADMISSION AND DISCHARGE BOOK.

No. of Case.	Reg. No.	Rank and Name. (If the Soldier is Married, write "M" under his name.)	Completed Years of		Dates.			
			Age (last Birthday.)	Service.	Injured or Attacked by Diseases, &c.	Admitted into Hospital.	Discharged from Hospital.	Died or Recovered when and where. (Write "died" in case of death, & "R" for recovered.)

Regiment or Corps. _____

(*NOTE.—When the Regiment or Corps moves to New Quarters, leave two Compartments without entries, and write therein the Names of the Garrison, Station, or Barracks at which the Regiment arrives, with the Date of arrival.*)

Diseases: (*a*) Primary. (*b*) Secondary. Also Operations.	Duration of Case, from period of Attack to Recovery or Death.	When Discharged from Hospital.		Observations.
		State of Health: (Whether Healthy or otherwise.)	Destination.	State briefly the circumstances in or by which the Sickness was induced; and in cases of Death the results of *post-mortem* examination; insert also Reference Number to "Case Book," in which any of the cases are recorded at length.

(Form H.)

STATISTICAL NOSOLOGY.

For the Use of Medical Officers in preparing Statistical Tables.

THE following *Statistical Nosology* is taken, with a slight modification, from the Appendix to the Registrar General's Sixteenth Annual Report. The names are the same as those which are employed in the returns of the diseases of the civil population.

The principles of the classification are explained in the Appendix to the above Report (pp. 73–79).

A committee, of which the President of the College of Physicians is Chairman, has now under its consideration the whole question of medical nomenclature. Any improvements which they suggest should be adopted in the nomenclature of the Army returns.

The diseases of women and children are retained in the classification.

STATISTICAL NOSOLOGY.

[NOTE.—The latinized names of classes and of orders are derived from Greek roots, which may help the memory, and suggest, but will never define, the classes. The English names of classes are used in nearly the ordinary senses, and "constitutional" here legitimately acquires a definite meaning. Instead of "Diseases of the Nervous System," I have employed the name "Brain Diseases," thus designating by the name of the principal organ the diseases of all the divisions of this great system. On the same principle the diseases of the circulatory, respiratory, digestive, urinary, reproductive, locomotive, and integumentary systems are named.]

CLASSES.

(Z.) I. ZYMOTIC DISEASES:—*Zymotici.* (ζύμη, leaven.)

Diseases that are either epidemic, endemic, or contagious; induced by some specific body, or by the want or by the bad quality of food.

(C.) II. CONSTITUTIONAL DISEASES:—*Cachectici.* (καχεξία, bad habit of body.)

Sporadic diseases; affecting several organs in which new heterologous morbid products are often deposited; sometimes hereditary.

(L.) III. LOCAL DISEASES:—*Monorganici.* (μόνος, alone, without others; ὄργανον, organ.)

Sporadic diseases, in which the *functions* of particular organs or systems are disturbed or obliterated; including *inflammation* (pure), its results, and its allied pathological phenomena, such as hyperæmias, hypertrophies, and ulcerations.

(D.) IV. Developmental Diseases:—*Metamorphici.* (*μεταμόρφωσις*, change of form.)
Special diseases, the incidental result of the formative, reproductive, and nutritive processes.

(V.) V. Violence Diseases or Deaths:—*Thanatici.* (*θάνατοι*, violent deaths.)
Diseases which are the evident and direct results of physical or chemical forces, acting either by the will of the sufferer, of other persons, or accidentally.

Orders.

Order.

Class I.—1. Miasmatic diseases:—*Miasmatici.* (*μίασμα*, stain, defilement.)
2. Enthetic diseases:—*Enthetici.* (*ἔνθετος*, put in; implanted.)
3. Dietic diseases:—*Dietici.* (*δίαιτα*, way of life; diet.)
4. Parasitic diseases: *Parasitici.* (*παράσιτος*, parasite.)

Class II.—1. Diathetic diseases:—*Diathetici.* (*διάθεσις*, condition, diathesis.)
2. Tubercular diseases:—*Phthisici.* (*φθίσις*, wasting away.)

Class III.—1. Brain diseases:—*Cephalici.* (*κεφαλή*, head.)
2. Heart diseases:—*Cardiaci.* (*καρδία*, heart.)
3. Lung diseases:—*Pneumonici.* (*πνεύμων*, lung.)
4. Bowel diseases:—*Enterici.* (*ἔντερον*, intestine.)
5. Kidney diseases:—*Nephritici.* (*νεφρὸς*, kidney.)
6. Gennetic diseases:—*Aidoici.* (*αἰδοῖα*, pudenda.)
7. Bone and muscle diseases:—*Myostici.* (*μῦς*, muscle; *ὀστέον*, bone.)
8. Skin diseases:—*Chrotici.* (*χρὼς*, skin.)

Class IV.—1. Developmental diseases of children:—*Paidiaci.* (*παιδία*, youth.)
2. Developmental diseases of women:—*Gyniaci.* (*γυνὴ*, woman.)
3. Developmental diseases of old people:—*Geratici.* (*γῆρας*, old age.)
4. Diseases of nutrition:—*Atrophici.* (*ἀτροφία*, atrophy.)

Class V.—1. Accident:—Tychici. (*τύχη*, chance.)
2. Battle:—Polemici. (*πόλεμος*, a battle, fight.)
3. Homicide:—Andróphonici. } (*ἀνὴρ*, man; *αὐτὸς*, self; *φονεύω*, I murder, I kill.)
4. Suicide:—Autophonici. }
5. Execution:—Demiotici. (*δημιώτης*, executioner.)

CLASS I.—ZYMOTIC DISEASES.—*Zymotici.*

Order 1.—*Miasmatici.*

Small Pox.
Varioloid.
Chicken Pox.
Miliaria.
Measles.
Whooping Cough.
Croup.
Mumps.
Scarlatina.
Quinsy.
Diphtheria.
Coryza, Catarrh, Influenza.
Ophthalmia (Purulent).
Erysipelas.
Erythema.
Metria (Puerperal Fever).
Pyemia.
Hospital Gangrene.
Carbuncle.
Boil.
Plague.
Dysentery.
Dysentery with Abscess of Liver.
Diarrhœa.
Cholera.
Typhoid Fever.
Typhus.
Relapsing Fever.
Ague.
Remittent Fever.
Yellow Fever.
Rheumatism.
,, with Heart Disease.

Order 2.—*Enthetici.*

Gonorrhœa.*

Simple Gonorrhœa gives rise to—

a Gleet.
b Gonorrhœal { Phymosis. / Paraphymosis.
c ,, Bubo.
d ,, Warts (not Condylomata).
e ,, Orchitis.
f ,, Cystitis (also Prostatic Inflammation).
g ,, Ophthalmia.

It is also followed by—

a Stricture of Urethra, which sometimes terminates in—Fistula of Urethra.
b Gon. Rheumatism.

Syphilis (Primary):

a Simple Chancre—also sometimes designated as Non-infecting Chancre, Ulcus Penis, Ulcus Penis non-syphiliticum.

Gives

* The classification of the forms of Gonorrhœa and Syphilis are by Mr. Acton.

Gives rise to—

1. Bubo.
2. Phymosis.

b Phagedenic Chancre.

c Indurated Chancre, called by some Hunterian Chancre, Infecting-Chancre, Hardened Sores.

Gives rise to slight swelling of groins, and is followed by—

SECONDARY SYPHILIS:—

1. Cutaneous Eruptions.
2. Condylomata (not warts).
3. Sore Throat.
4. Syphilitic Iritis.

These are succeeded by—

TERTIARY SYPHILIS:—

1. Ecthyma.
2. Rupia.
3. Nodes.
4. Disease of the Bones.

NOTE.—Where the disease is modified by Scrofula or Scurvy the modification should be noted.

Leprosy (Greek Elephantiasis).
Yaws.
Glanders.
HYDROPHOBIA.
Necusia (infection by puncture in dissection or by handling the parts of dead animals).
Malignant Pustule.

ORDER 3.—*Dietici.*

SCURVY (state what parts are affected).
Purpura.
Rickets.
Bronchocele.
Cretinism.
Ergotism.
Alcoholism { *a* Delirium Tremens. *b* Intemperance.

ORDER 4.—*Parasitici.*

THRUSH.
Porrigo.
Scabies.
Phthiriasis.
WORMS.
a Hydatids.
b Tape Worm.
c Strongilus Gigas.
d Round Worm.
e Thread Worm.
f Guinea Worm.

CLASS II.—CONSTITUTIONAL DISEASES.—*Cachectici.*

Order 1.—*Diathetici.*

Gout.
Anæmia.
Dropsy.
Cancer.
„ Soft.
„ Colloid.
„ Osteoid.
„ Scirrhus.
Cancer, Epithelial.
Melanosis.
Lupus.
Canker (Noma).
Mortification.
Dry Gangrene.
Bed Sore.

(Hæmorrhage, Abscess, Ulcer, Tumour, are referred to the organs affected.)

Order 2.—*Phthisici.*

Scrofula.
Psoas Abscess.
Scrofulous Abscess of Joints.
Tuberculosis Mesenterica.
Tubercular Peritonitis.
Phthisis.
(Hæmoptysis.)
(Pneumothorax.)
Hydrocephalus (with tubercular deposit).

CLASS III.—LOCAL DISEASES.—*Monorganici.*

Order 1.—*Cephalici.*

Meningitis.
Cephalitis (including acute Hydrocephalus).
Myelitis.
Apoplexy.
Paralysis (of).
Shaking Palsy.
Chorea.
Mania.
Monomania.
Dementia.
Epilepsy.
Hysteria.
Tetanus (Idiopathic).
Convulsions.
Laryngismus Stridulus.
Neuralgia (Tic Douloureux).
Neuroma.
Ophthalmitis (not purulent).
Cataract.
Amaurosis.
Glaucoma and other diseases of the eye.
(Inflammation of the different parts of the eye should be distinguished.)
Otorrhœa.
Otitis.
Deafness, and other diseases of the ear.

ORDER 2.—*Cardiaci.*

Carditis.
PERICARDITIS.
Endocarditis.
Disease of Heart Valves.
Heart Hypertrophy.
„ Atrophy.
„ Fatty Degeneration.
ANEURISM OF THE HEART.
Aneurism of the Aorta.
„ Popliteal Artery, &c.
Angina Pectoris.
Fainting.
Arteritis.
Atheroma (of Arteries).
Phlebitis.
Varix.

ORDER 3.—*Pneumonici.*

Epistaxis.
LARYNGITIS (Œdema of the Glottis).
BRONCHITIS.
PLEURISY.
Hydrothorax.
Empyema.
Pneumothorax (*see* Phthisis).
PNEUMONIA.
Pleuripneumonia.
Congestion of Lungs.
ASTHMA.
Emphysema (of Lungs).
Spurious Melanosis.

ORDER 4.—*Enterici.*

Glossitis.
Stomatitis.
Pharyngitis.
Œsophagitis.
GASTRITIS.
ENTERITIS.
PERITONITIS.
Constipation.
Colic.
ILEUS (Obstruction of Bowels).
INTUSSUSCEPTION.
HERNIA.
„ Congenital.
„ Femoral.
„ Inguinal.
„ Scrotal.
„ Umbilical.
„ Ventral.
STRICTURE (of) name the part of the intestinal tube affected.
ULCERATION (of).
Perforation (of).
Dyspepsia.
Pyrosis.
Gastralgia.
Hæmatemesis.
Melæna.
Hæmorrhoids.
FISTULA.
PANCREATIC Disease.
SPLEEN Disease.
HEPATITIS.
JAUNDICE.
Gall Stones.
Cirrhosis.
ASCITES.

ORDER 5.—*Nephritici.*

NEPHRITIS.
ISCHURIA.
Diuresis.
NEPHRIA (Bright's Disease, Albuminuria).
DIABETES.
STONE (Uric Acid, &c.)
Gravel (Uric Acid, &c.)
Hæmaturia.
CYSTITIS.
Disease of Prostate Gland.
Stricture of Urethra (not a consequence of Gonorrhœa).

ORDER 6.—*Gennetici.*

Varicocele.
Orchitis.
Hydrocele.
Hysteritis.
OVARIAN DROPSY.
„ Tumour.
Uterine Tumour.
Polypus of Uterus.

ORDER 7.—*Myostici.*

SYNOVITIS.
Ostitis (including Periostitis and Endostitis).
Exostosis.
Fragilitas Ossium.
Mollities Ossium.
Curvature of Spine.
Caries.
Necrosis.
Muscular Atrophy.

ORDER 8.—*Chrotici.*

Roseola.
Urticaria.
Eczema.
Herpes.
Pemphigus.
Ecthyma.
Impetigo.
Acne.
Mentagra.
Lichen.
Prurigo.
Psoriasis.
Pityriasis.
Ichthyosis.
PHLEGMON.
Whitlow.
Abscess (external).
Ulcer (name the part affected).

CLASS IV.—DEVELOPMENTAL DISEASES.—*Metamorphici.*

ORDER 1.—*Paidiaci.*

Still-born.
Premature Birth
Atelectasis.
Malformations.
Cyanosis.
Spina Bifida.
Anus Imperforatus.
Idiocy.
Congenital Deafness.
„ Dumbness.
Teething.

ORDER 2.—*Gyniaci.*

Chlorosis.

CHILDBIRTH. { Miscarriage. / Abortion, &c.

Includes—Rupture of Uterus, Extra Uterine Fœtation, Flooding, Puerperal Mania, Puerperal Convulsions, Puerperal Syncope, Hysteritis, Breast Abscess. *See* also Metria, Class I, 1.

Paramenia (includes Amenorrhœa, Leucorrhœa, turn of life Climacteria.)

ORDER 3.—*Geratici.*—Decay of Old Age.

ORDER 4.—*Atrophici.*—Atrophy, Debility (includes premature old age).

CLASS V.—VIOLENCE DEATHS OR DISEASES.—*Thanatici.*

ORDER 1.—ACCIDENT.—*Tychici.*

Burn (state how caused).
Scald (state how caused).
Explosion of Powder, Gas, &c.
Chilblains.
Frost-bite.
Lightning (where struck, and how?)
Sun-stroke (state circumstances).
Drowning (where, and how?)
Hanging (where, and how?)
Suffocation (where, and how?)
Fracture of— } state how caused.
Contusion of— } state how caused.
Concussion of— } state how caused.
Gunshot wound (by what arm or projectile?)
Cut, stab (with what instrument?)
Poisoning (what poison, and how much?)
Privation (to what extent?)
Otherwise.

ORDER 2.—BATTLE.—*Polemici.*

State in all cases the weapon by which the wound was inflicted, and the part injured.

Killed on the field (state how, whether by cannon or other ball, by bayonet, sword, &c.)
Gunshot wound (state whether by cannon ball, grape shot, shell, musket or rifle ball).
Cut, stab (state if by bayonet, sword, lance, &c.)
Otherwise.

Killed in naval engagement (state how).
Gunshot wound (state whether by cannon or other ball).
Cut, stab (state by what weapon).
Otherwise.

ORDER 3.—HOMICIDE.*—*Androphonici.*

State in all cases, if possible, by what means, and under what circumstances the homicide was committed.

Burn.
Scald.
Drowning in—
Suffocation by—
Fracture of—
Blow on—
Contusion

---

* Including duel and any other mode of fighting than that which is included in No. 2, "Murder" to be noted.

Contusion of—
Concussion of—
Gunshot wound by—
Cut, stab by—
Poisoning by—(state by what poison; and, where it can be ascertained, in what dose).
Privation.
Otherwise.

Order 4.—Suicide.—*Autophonici.*

State in all cases, if possible, by what means and under what circumstances the suicide was committed.

Burn.
Drowning.
Hanging.
Suffocation.
Fracture, &c.
Gunshot wound.
Cut, stab.
Poisoning (by).
Privation.
Otherwise.

Order 5.—Execution.—*Demiotici.*

Shooting.
Hanging.

N.B.—In every case of death from violence it should be stated whether the death was (1st) from *accident* or *negligence*; (2d) *in battle*; or was (3d) *excusable* or *justifiable homicide*; (4th) *manslaughter*; (5th) *suicide*; (6th) *murder*, infanticide, fratricide, parricide; (7th) execution.

The *instruments* employed, where human agency is concerned, as well as the *animals*, *machines*, and *poisons*, or other *bodies* whereby the injury is inflicted, should be stated in all cases. The place of death or of injury, and the time which elapsed between the infliction of the injury and death, should also be recorded. At the same time the statement should be made as concise as it is clear and comprehensive.

Where the injury is not fatal the same course should be adopted with the necessary modifications.

N.B.—This arrangement to be followed by an Alphabetical List of Diseases, referring each disease to its Class and Order, and appropriate nomenclature.

Form I.

MEDICAL CERTIFICATE BOOK.

MEDICAL CERTIFICATE BOOK.

No. of Case_____

Regimental No. _____

Rank and Name _____

Disease _____

Date of Extract _____ 185

Man left at _____

in charge of _____

Extract from the "ADMISSION and DISCHARGE BOOK" of the _____ Regiment.

No. of Case	Reg. No.	Rank and Name. (If Married, write M under his Name.)	Completed Years of: Age (last Birthday.)	Completed Years of: Service.	Dates. Injured or Attacked by Diseases.	Dates. Admitted into Hospital.	Dates. Discharged from Hospital.	Dates. Died or Recovered. When and Where.*	Diseases. (*a*) Primary. (*b*) Secondary. Also Operations.

Duration of Case from period of Attack to Recovery or Death.	When Discharged from Hospital. State of Health. (Whether Healthy or otherwise.)	When Discharged from Hospital. Destination.	OBSERVATIONS. (State briefly the circumstances in or by which the Sickness was induced, and in Case of Death the results of *post-mortem* examination.)

Extracted from Admission and Discharge Book of the above Regiment this ____ day of _____ 185 , by _____

Particulars of Discharge, &c., filled in, and Extract transmitted to _____ *this ____ day of* _____ 185 , *by* _____

Man left at _____

in charge of _____

* Write [DIED] in case of Death, and R for Recovered.

MEMORANDUM.

WHEN a Regiment leaves any of its Sick in the charge of the Medical Officers of another Regiment, or sends them to a General Hospital, this Form (filled in with the particulars of each man's Regimental Number, Name, Age, and Service, the Dates of Attack of Illness and Admission into Hospital, Disease, &c.), is to be left or sent with the man by the Surgeon of his Regiment; and on the termination of the case the Medical Officers having the man in charge will complete the entry by filling in the particulars as to Discharge, &c., and forward the Form, at the earliest opportunity, to the Surgeon of the Regiment to which the man belongs.

This Form will be used on any other occasion for conveying information respecting a sick soldier from one Surgeon to another; or from the Regimental Surgeon to the Director-General.

(Form K.)—*For General Hospitals.*

ADMISSION AND DISCHARGE BOOK OF THE

No. of Case.	Regiment or Corps.	Reg. No.	Rank and Name and Station from which he came. (If the Soldier is Married, write "M" under his name.	Completed Years of		Dates.			
				Age (last Birthday.)	Service.	Injured or Attacked by Diseases, &c.	Admitted into General Hospital.	Discharged from General Hospital.	Died or Recovered; (Write [Died] in case of death, and "R" for recovered.

GENERAL HOSPITAL AT_____

Diseases. (*a*) Primary. (*b*) Secondary. Also Operations.	Duration of Case, from Period of Attack to Recovery or Death.	When Discharged from Hospital.		Observations. (State briefly the circumstances in or by which Sickness was induced; and in cases of Death the results of *post-mortem* examination; insert also Reference Number to "Case Book," in which any of the cases are recorded at length.)
		State of Health. (Whether Healthy or otherwise.)	Destination.	

(Form L.)

MEDICAL CASE BOOK for Non-Commissioned Officers and Men of the_____Regiment.

Regimental No. _____ Name _____

Age last Birthday_____ Completed years of Service_____

Station_____ Time on the Station_____

Day of Month.	Completed Day of Disease.	Particulars of Case and Prescriptions.	Diet.	

(Form M.) (Experimental.)

WEEKLY RETURN of Sickness in the Army.

(Week ending Friday (Night), 12 February 1858.)

The strength of the regiments which made returns was 22,656 on February 12th. On that night 1,432 of the number were sick in hospital; or more by 49 than the number sick on the previous Friday night (February 5th), when 6·2 per cent. of the force were sick; while now 6·3 per cent. of the force are sick.

606 new cases were admitted during the week; 557 cases were discharged, including 4 deaths. In the previous week 582 cases were admitted, and 517 were discharged, also including 4 deaths.

The mortality was at the rate of 9·2 per 1,000 per annum; at Aldershot, out of a mean force of 15,321 men, only 3 deaths occurred in a fortnight.

The proportional numbers sick in different corps range from 3·4 to 10·2 to every 100 men. The sickness was least in the following regiments: Lancashire Militia, 3·4; Berks Militia, 4·2; Cheshire Militia, 4·3; Warwick Militia, 4·5; York Militia, 4·6; Dumfries Militia, 4·6.

The number disabled by sickness was greatest in the following regiments: 4th Light Dragoons, 6·7; Wexford Militia, 6·9; Donegal Militia, 7·0; Fermanagh Militia, 7·7; Royal Artillery, 7·9; the Chatham Depôts, which are differently constituted, 10·2 per cent. Some of these discrepancies are, to a certain extent, accidental; some are explained by the surgeons; but all merit further careful investigation.

The Irish Militia have proportionally more sickness among them than the English and Scotch.

Syphilis, &c., at the beginning of the week (February 5th), retained less than *one* per cent. of the strength of some regiments in hospital. But, unless there be some error, 5·1 per cent. of the Royal Artillery, 4·5 per cent. of the Wexford Militia, 4·3 of the Depôt Battalions at Chatham, 3·6 of the 99th, and 3·6 of the 6th Battalion Military Train, are in hospital for these maladies.

The attacks of sickness during the week were at the rate of 135 per cent. per annum; that is, 135 cases of sickness would occur in a strength of 100 men. This is above the ordinary average. The attacks of sickness were in the highest proportion in the Bedford Militia, the Nottingham Militia, Aldershot; and the Depôt Battalions, Chatham.

Of the 606 cases of sickness, 467 belonged to the zymotic class, including 33 of quinsy, 137 of catarrh or influenza, 13 of ophthalmia, 18 of fever, 1 of dysentery, 17 of diarrhœa, 30 of rheumatism, 180 of syphilis, &c., 29 of psora.

Measles was apparently introduced into the camp by the Donegal and Fermanagh Militia; it has attacked several men in the South Down Militia. In the notes to the Table the importance of the anterior sanitary condition of the men is shown.

Two deaths occurred in the Depôt Battalions at Chatham; 1 from phthisis; 1 from bronchitis; 1 of the Royal Engineers also died of phthisis at Chatham. The death of a Fermanagh Militiaman at Aldershot was from pneumonia.

A comparison of the average numbers *remaining sick* with the average numbers treated in a week, which is the mean number of the admitted and the discharged, shows, among other things, the duration of the several kinds of illness. Thus, if the cases of any disease remaining in hospital, and the cases admitted or discharged during the week, are all equal, the cases are of a week's duration. The duration of the cases treated is shown for the various regiments in the Table 4; but it will vary from week to week.

SICKNESS IN THE ARMY.

TABLE I.—TOTAL STRENGTH, Number of Cases of SICKNESS, (1) Remaining, (2) Admitted into Hospital, and (3) Discharged; with the State of Men when discharged from Hospital, Number of DEATHS, and previous Stations of Regiments.

STATION and REGIMENT or CORPS.	Strength.		Sick remaining on Friday Night.		New Cases Admitted in the Week ending		Discharged (including Deaths) in the Week ending		In the Week ending Feb. 12. State of Men when discharged from Hospital.			PREVIOUS STATION.
	Feb. 5th.	Feb. 12th.	Feb. 5th.	Feb. 12th.	Feb. 5th.	Feb 12th.	Feb. 5th.	Feb. 12th.	Healthy.	Otherwise.	Deaths.	
All Stations Reported	22,363	22,656	1,383	1,432	582	606	517	557	532	21	4	
London - - -	1,551	1,551	78	76	20	21	23	23	23	–	–	
Aldershot Camp -	15,359	15,284	785	809	339	364	309	340	324	15	1	
Chatham - - -	5,453	5,821	520	547	223	221	185	194	185	6	3	
LONDON:												
Grenadier Guards, 1st and 2d Battalions	1,551	1,551	78	76	20	21	23	23	23	–	–	
ALDERSHOT CAMP:												
4th Light Dragoons -	478	478	28	32	15	14	18	10	10	–	–	Brighton.
6th Batt. Military Train	197	209	11	12	2	5	4	4	4	–	–	York.
Royal Artillery - -	570	570	47	45	8	9	6	11	9	2	–	Woolwich, &c.*
Royal Engineers -	90	90	4	6	–	4	1	2	2	–	–	Chatham.
15th Regiment Foot -	865	834	35	39	9	13	10	9	9	–	–	Gibraltar.
96th „ „ -	803	789	37	37	19	12	12	12	12	–	–	Ditto.
99th „ „ -	830	829	50	48	19	20	17	22	21	1	–	Curragh Kildare.
Militia—												
Berks - - -	614	637	20	27	10	15	15	8	8	–	–	Reading.
Bedford - -	630	630	28	33	18	28	11	23	22	1	–	Bedford.
Cheshire - -	1,005	960	31	41	10	16	15	6	6	–	–	Chester.
Dublin City - -	584	546	37	34	17	10	17	13	13	–	–	Ashton-under-Lyne, &c.
South Down - -	604	604	37	38	17	16	7	15	15	–	–	Dublin.
Donegal - -	575	575	34	40	17	23	21	17	17	–	–	Londonderry.
Fermanagh - -	442	430	27	33	11	17	13	11	10	–	1	Enniskillen.
Dumfries - -	492	480	22	22	13	12	15	12	10	2	–	Dumfries.
4th Lancashire -	970	979	38	33	18	23	12	28	24	4	–	Preston.
Limerick County -	816	816	45	41	18	13	12	17	17	–	–	Limerick.
Louth Rifles - -	459	459	26	22	21	14	20	18	18	–	–	Dundalk.
†Royal Wilts - -	835	850	40	41	19	19	16	18	18	–	–	Devizes.
Nottingham - -	820	821	46	45	21	31	16	32	31	1	–	Newark.
Roscommon - -	620	620	31	32	16	17	15	16	16	–	–	Mullingar.
Wexford - -	579	579	39	40	5	6	4	5	5	–	–	Clonmel.
2d Warwick - -	703	695	33	31	16	11	14	13	13	–	–	Leamington.
3d West York -	778	804	39	37	20	16	18	18	14	4	–	Doncaster.
CHATHAM:												
Royal Engineers and H.E.I.C. Engineers	996	996	58	55	31	30	36	33	31	1	1	
1st, 2d, and 3d Depôt Battalions - -	4,457	4,825	462	492	192	191	149	161	154	5	2	

* Namely, Troop I. from Woolwich, F. Battery from Northampton, and No. 5 Battery from Norwich.

† The Royal Wilts Militia left the Camp for Portsmouth during the week ending February 5th, but the Surgeon has continued to make the return; of four men left at Aldershot in hospital, one died of scarlatina.

SICKNESS IN THE ARMY.

TABLE II.—TOTAL NUMBER of Cases of SICKNESS (1) Remaining, (2) Admitted into Hospital, and (3) Discharged, with the Number of DEATHS, in the Week ending 12th February 1858.

TOTAL STRENGTH on 5th February, 22,363; on 12th February, 22,656.

Class.	DISEASES, &c.	Sick remaining on Friday Night.		New Cases Admitted.	Discharged (including Deaths).	DEATHS.
		5 Feb.	12 Feb.	In the Week ending Friday, 12 February.		
	ALL CAUSES	1,383	1,432	606	557	4
	SPECIFIED CAUSES	1,372	1,417	601	556	4
	(CLASSES.)					
I.	ZYMOTIC DISEASES	1,075	1,124	467	418	—
II.	CONSTITUTIONAL	32	28	5	9	2
III.	LOCAL	190	190	91	91	2
*V.	VIOLENCE	75	75	38	38	—
I.	ORD. 1. MIASMATIC DIS.					
	Smallpox	9	9	1	1	—
	Measles	15	15	2	2	—
	Scarlatina	4	5	1	—	—
	Quinsy	60	56	33	37	—
	Catarrh and Influenza	174	207	137	104	—
	Ophthalmia (Purulent?)	31	37	13	7	—
	Fever (C. C.)	29	37	18	10	—
	Erysipelas	5	5	1	1	—
	Carbuncle	12	11	2	3	—
	Dysentery	3	3	1	1	—
	Diarrhœa	6	11	17	12	—
	Cholera	—	—	—	—	—
	Ague	2	3	1	—	—
	Remittent Fever	—	—	—	—	—
	Rheumatism	96	92	30	34	—
	„ with Heart Dis.	4	4	—	—	—
	ORD. 2. ENTHETIC DIS.					
	Syphilis, &c.	607	610	179	176	—
	Stricture of Urethra	1	1	1	—	—
	ORD. 3. DIETIC DIS.					
	Purpura and Scurvy	—	—	—	—	—
	Alcoholism *a.* Del. Trem.	2	2	1	1	—
	Alcoholism *b.* Intemper.	—	—	—	—	—
	ORD. 4. PARASITIC DIS.					
	Psora	14	15	29	28	—
	Porrigo, &c.	2	1	—	1	—

* Class IV. is omitted as inapplicable to the Army.

Class.	DISEASES, &c.	Sick remaining on Friday Night.		New Cases Admitted.	Discharged (including Deaths).	Deaths.
		5 Feb.	12 Feb.	In the Week ending Friday, 12 February.		
II.	ORD. 1. DIATHETIC DIS.					
	Gout	—	—	—	—	—
	Dropsy	1	1	1	1	—
	Cancer	—	—	—	—	—
	Mortification	—	—	—	—	—
	ORD. 2. TUBERCULAR DIS.					
	Scrofula	11	11	1	1	—
	Phthisis	20	16	3	7	2
III.	ORDER 1.					
	Cephalitis	—	—	—	—	—
	Apoplexy	—	—	—	—	—
	Paralysis	-	1	1	—	—
	Insanity	—	—	—	—	—
	Epilepsy	8	5	-	3	—
	Otitis	6	5	3	4	—
	Brain Disease, &c.	6	4	2	4	—
	ORDER 2.					
	Pericarditis	—	—	—	—	—
	Aneurism	—	—	—	—	—
	Varix	9	12	6	3	—
	Heart Disease, &c.	1	1	1	1	—
	ORDER 3.					
	Laryngitis	—	—	—	—	—
	Bronchitis	15	17	11	9	1
	Pleurisy	10	9	1	2	—
	Pneumonia	10	8	3	5	1
	Asthma	1	2	1	—	—
	Lung Disease, &c.	—	—	—	—	—
	ORDER 4.					
	Gastritis	—	—	—	—	—
	Enteritis	—	—	—	—	—
	Peritonitis	—	—	—	—	—
	Ascites	—	—	—	—	—
	Ulceration of Intestines	—	—	—	—	—
	Hernia	-	2	2	—	—
	Ileus and Colic	3	-	-	3	—
	Intussusception	—	—	—	—	—
	Stricture of Intestine	—	—	—	—	—
	Fistula	1	1	—	—	—
	Stomach Disease, &c.	13	10	9	12	—
	Pancreas Disease, &c.	—	—	—	—	—
	Hepatitis	5	5	1	1	—
	Jaundice	-	1	1	—	—
	Liver Disease, &c.	—	—	—	—	—
	Spleen Disease, &c.	-	1	1	—	—
	ORDER 5.					
	Nephritis	—	—	—	—	—
	Ischuria	—	—	—	—	—
	Nephria	—	—	—	—	—
	Diabetes	—	—	—	—	—
	Stone	—	—	—	—	—
	Cystitis	—	—	—	—	—
	Kidney Disease, &c.	4	2	-	2	—

Class.	DISEASES, &c.	Sick remaining on Friday Night.		New Cases Admitted.	Discharged (including Deaths).	DEATHS.
		5 Feb.	12 Feb.	In the Week ending Friday, 12 February.		
	ORDER 6.					
	Orchitis	—	—	1	1	—
	Hydrocele	1	2	1	—	—
	Testis Disease, &c.	1	1	—	—	—
	ORDER 7.					
	Arthritis	2	2	1	1	—
	Joint Disease, &c.	1	1	—	—	—
	ORDER 8.					
	Phlegmon	27	32	23	18	—
	Abscess	7	11	7	3	—
	Ulcer	20	16	5	9	—
	„ after Contusion	22	23	7	6	—
	Skin Disease, &c.	17	16	3	4	—
V.	ORDER 1.					
	ACCIDENT OR NEGLIGENCE.					
	Burns or Scalds	4	4	1	1	—
	Contusion	33	33	16	16	—
	Sore Feet, &c.	—	1	3	2	—
	Sub-luxation	12	15	11	8	—
	Luxation	—	—	—	—	—
	Fracture	12	9	1	4	—
	Wounds { Gunshot	1	—	—	1	—
	Wounds { Incised	10	10	6	6	—
	Drowning	—	—	—	—	—
	Otherwise	3	3	—	—	—
	ORDER 2.					
	BATTLE.					
	Gunshot Wound	—	—	—	—	—
	Cut, Stab	—	—	—	—	—
	Otherwise	—	—	—	—	—
	ORDER 3.					
	HOMICIDE.					
	Murder or Manslaughter	—	—	—	—	—
	ORDER 4.					
	SUICIDE, attempted or accomplished.					
	Wounds { Gunshot	—	—	—	—	—
	Wounds { Cut, Stab	—	—	—	—	—
	Poison	—	—	—	—	—
	Drowning	—	—	—	—	—
	Hanging	—	—	—	—	—
	Otherwise	—	—	—	—	—
	ORDER 5.					
	Punitus	—	—	—	—	—
	Other Injuries from Violence	—	—	—	—	—
	Observatio	11	15	5	1	—

SICKNESS IN THE ARMY - - - - -

TABLE III.—NEW CASES of SICKNESS (among Non-Commissioned Officers

Class.	DISEASES, &c.	LONDON.	ALDERSHOT CAMP. - - -										
							Foot Regiments.			Militia. -			
		Grenadier Guards, 1st and 2d Battalions.	4th Light Dragoons.	6th Battalion Military Train.	Royal Artillery.	Royal Engineers.	15th.	96th.	99th.	Berks.	Bedford.	Cheshire.	Dublin City.
	Strength - - - - - -	1,551	478	209	570	90	834	789	829	637	630	960	546
	TOTAL New Cases - - -	21	14	5	9	4	13	12	20	15	28	16	10
I.	ORD. 1.—Smallpox - - -	1	–	–	–	–	–	–	–	–	–	–	–
	Measles - - - -	–	–	–	–	–	–	1	–	–	–	–	–
	Scarlatina - - - -	–	–	–	–	–	–	–	–	–	–	–	–
	Quinsy - - - -	–	1	–	–	1	–	1	–	–	–	1	–
	Catarrh and Influenza -	2	2	2	–	–	–	5	2	7	9	3	1
	Ophthalmia (purulent?) -	–	–	1	–	–	5	–	1	1	1	–	2
	Fever (C. C.) - - -	2	–	–	–	–	–	1	–	–	2	1	–
	Erysipelas - - -	–	–	–	–	–	–	–	–	–	–	–	–
	Carbuncle and Boil - -	–	–	–	–	–	–	–	–	–	–	–	–
	Dysentery - - -	–	–	–	–	–	–	–	–	–	–	–	–
	Diarrhœa - - - -	–	–	–	–	–	–	–	–	–	1	1	–
	Cholera - - - -	–	–	–	–	–	–	–	–	–	–	–	–
	Ague - - - -	–	–	–	–	–	–	–	–	–	–	–	–
	Remittent Fever - -	–	–	–	–	–	–	–	–	–	–	–	–
	Rheumatism - - -	1	–	–	1	2	–	–	1	–	1	–	1
	ORD. 2.—Syphilis, &c. - -	8	8	–	4	1	4	2	11	5	6	6	2
	Stricture of Urethra -	–	–	–	–	–	–	1	–	–	–	–	–
	ORD. 3.—Purpura and Scurvy -	–	–	–	–	–	–	–	–	–	–	–	–
	Alcoholism { *a.* Del. Trem.	–	–	–	–	–	–	–	–	–	–	–	–
	Alcoholism { *b.* Intemp. -	–	–	–	–	–	–	–	–	–	–	–	–
	ORD. 4.—Psora - - - -	–	1	1	1	–	–	1	–	–	5	–	2
	Porrigo, &c. - - -	–	–	–	–	–	–	–	–	–	–	–	–
II.	ORD. 1.—*Diathetic* Diseases -	–	–	–	–	–	–	–	–	–	–	–	–
	ORD. 2.—Scrofula - - - -	–	–	–	–	–	–	–	–	–	–	–	–
	Phthisis - - - -	2	–	–	–	–	–	–	–	–	–	–	–

SICKNESS IN THE ARMY.

and Men) admitted into Hospital in the Week ending 12th February 1858.

Aldershot Camp. — Militia.													Chatham.		Diseases, &c.
South Down.	Donegal.	Fermanagh.	Dumfries.	4th Lancashire.	Limerick County.	Louth Rifles.	Royal Wilts.	Nottingham.	Roscommon.	Wexford.	2d Warwick.	3d West York.	Royal Engineers and H. E. I. C. Engineers.	1st, 2d, and 3d Depôt Battalions.	
604	575	430	480	979	816	459	850	821	620	579	695	804	996	4,825	Strength.
16	23	17	12	23	13	14	19	31	17	6	11	16	30	191	Total New Cases.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Smallpox.
1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Measles.
–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	Scarlatina.
1	–	1	–	–	–	–	4	–	–	–	3	1	2	17	Quinsy.
4	6	–†	4	7	–	–	1	10	4	–	2	–	4	62	Catarrh and Influenza.
–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	Ophthalmia (purulent ?)
–	–	–	–	–	2	–	–	–	–	–	–	–	1	9	Febris C. C.
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	Erysipelas.
–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	Carbuncle and Boil.
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	Dysentery.
1	1	–	2	–	–	1	–	2	2	–	–	–	–	6	Diarrhœa.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Cholera.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	Ague.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Remittent Fever.
–	2	–	1	–	2	–	2	2	–	–	1	–	3	10	Rheumatism.
3	3	5	3	4	3	2	8	7	3	3	2	9	12	55	Syphilis, &c.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Stricture of Urethra.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Purpura and Scurvy.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	*a*. Del. Tremens } Alcoholism.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	*b*. Intemperance }
1	–	1	–	4	1	–	–	4	1	–	–	–	–	6	Psora.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Porrigo, &c.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	*Diathetic* Diseases.
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	Scrofula.
–	–	–		–	–	–	–	–	–	–	–	–	1	–	Phthisis.

† *See* Bronchitis.

(*continued*)

Class.	DISEASES, &c.	London.	Aldershot Camp.										
		Grenadier Guards, 1st and 2d Battalions.	4th Light Dragoons.	6th Battalion Military Train.	Royal Artillery.	Royal Engineers.	Foot Regiments. 15th.	Foot Regiments. 96th.	Foot Regiments. 99th.	Militia. Berks.	Militia. Bedford.	Militia. Cheshire.	Militia. Dublin City.
III.	Ord. 1.—Epilepsy	–	–	–	–	–	–	–	–	–	–	–	–
	Other Dis. of *Nervous System* and *Senses*	–	–	–	–	–	1	–	–	–	–	–	–
	Ord. 2.—Varix	–	–	–	–	–	–	–	–	–	–	–	–
	Other Dis. of Organs of *Circulation*	–	–	–	–	–	–	–	–	–	–	–	–
	Ord. 3.—Bronchitis	–	–	–	–	–	–	–	–	–	–	–	–
	Pleurisy	–	–	–	–	–	–	1	–	–	–	–	–
	Pneumonia	1	–	1	–	–	–	–	–	–	–	–	–
	Asthma	–	–	–	–	–	–	–	–	–	–	–	–
	Other Dis. of *Respiratory* Organs	–	–	–	–	–	–	–	–	–	–	–	–
	Ord. 4.—Dis. of *Digestive* Organs	1	–	–	–	–	1	–	2	–	1	1	–
	Ord. 5.—Dis. of *Urinary* Organs	–	–	–	–	–	–	–	–	–	–	–	–
	Ord. 6.—Dis. of Organs of *Generation*	–	–	–	–	–	–	–	–	–	–	–	–
	Ord. 7.—Dis. of Organs of *Locomotion*	–	–	–	–	–	–	–	–	–	–	–	–
	Ord. 8.—Phlegmon	†2	–	–	–	–	–	–	–	–	–	–	–
	Abscess	–	–	–	–	–	–	–	–	–	–	2	1
	Ulcer	–	2	–	–	–	–	–	–	–	–	–	–
	,, after Contusion	–	–	–	–	–	–	–	–	1	–	–	–
	Skin Disease, &c.	–	–	–	–	–	–	–	–	–	–	–	–
V.	Ord. 1.—Accident or Negligence												
	Burns or Scalds	–	–	–	–	–	–	–	–	–	–	–	–
	Contusion	1	–	–	1	–	2	–	1	–	–	–	–
	Sore Feet, &c.	–	–	–	–	–	–	–	–	–	–	–	–
	Sub-luxation	–	–	–	–	–	–	–	2	–	1	–	1
	Luxation	–	–	–	–	–	–	–	–	–	–	–	–
	Fracture	–	–	–	1	–	–	–	–	–	–	–	–
	Wounds { Gunshot	–	–	–	–	–	–	–	–	–	–	–	–
	Wounds { Incised	–	–	–	1	–	–	–	–	1	1	–	–
	Drowning	–	–	–	–	–	–	–	–	–	–	–	–
	Otherwise	–	–	–	–	–	–	–	–	–	–	–	–
	Ords. 2–5.—Battle, Homicide, Suicide, Execution	–	–	–	–	–	–	–	–	–	–	–	–
	Other Injuries from Violence	–	–	–	–	–	–	–	–	–	–	–	–
	Observatio	–	–	–	–	–	–	–	–	–	–	1	–

† One Whitlow.

Aldershot Camp. — Militia.														Chatham.		DISEASES, &c.
South Down.	Donegal.	Fermanagh.	Dumfries.	4th Lancashire.	Limerick County.	Louth Rifles.	Royal Wilts.	Nottingham.	Roscommon.	Wexford.	2d Warwick.	3d West York.	Royal Engineers and H. E. I. C. Engineers.	1st, 2d, and 3d Depôt Battalions.	
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Epilepsy.
–	1	–	1	–	2	–	–	–	–	–	–	–	–	1	Other Dis. of *Nervous System* and *Senses*.
–	1	–	–	–	–	1	–	1	–	1	–	–	–	2	Varix.
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	Other Dis. of Organs of *Circulation*.
1	–	9	–	–	–	–	–	–	–	–	–	–	–	1	Bronchitis.
1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Pleurisy.
–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	Pneumonia.
–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	Asthma.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Other Dis. of *Respiratory* Organs.
–	–	–	–	4	–	–	–	–	–	–	–	–	–	4	Dis. of *Digestive* Organs.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Dis. of *Urinary* Organs.
–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	Dis. of Organs of *Generation*.
–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	Dis. of Organs of *Locomotion*.
–	–	–	–	–	–	2	–	2†	–	–	1	1	5	10	Phlegmon.
–	–	–	–	1	–	–	1	–	2	–	–	–	–	–	Abscess.
–	–	–	1	–	–	1	–	–	–	–	–	–	–	1	Ulcer.
–	1	–	–	–	2	1	–	–	–	2	–	–	–	–	„ after Contusion.
1	–	–	–	–	–	–	–	–	–	–	–	2	–	–	*Skin Disease, &c.*
															(Accident or Negligence)
–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	Burns or Scalds.
–	2	–	–	–	–	–	1	1	2	–	–	–	2	3	Contusion.
–	1	–	–	1	–	–	1	–	–	–	–	–	–	–	Sore Feet, &c.
1	1	–	–	1	–	3	–	–	–	–	1	–	–	1	Sub-luxation.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Luxation.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Fracture.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Gunshot } Wounds.
1	–	1	–	–	–	–	–	–	–	–	–	1	–	–	Incised }
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Drowning.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Otherwise.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Battle, Homicide, Suicide, Execution.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Other Injuries from Violence.
–	–	–	–	1	1	–	–	–	–	–	–	–	–	2	Observatio.

† One Whitlow.

SICKNESS IN THE ARMY.

TABLE IV.—SHOWING the PROPORTIONS of the NON-COMMISSIONED OFFICERS and MEN in the different Regiments REMAINING SICK on 5th February and 12th February, the RATE of ATTACKS from SICKNESS, and the DURATION of CASES TREATED.

STATION and REGIMENT OF CORPS.	To 100 of the Strength, the Sick remaining.			Rate of Attacks of Sickness per Cent. per Annum in the	Average Duration of Cases treated in the
	Feb. 5.		Feb. 12.		
	Syphills, &c.	All Causes.	All Causes.	Week ending 12 Feb.	
					Days.
ALL STATIONS REPORTED	2·7	6·2	6·3	135	17
LONDON	2·6	5·0	4·9	74	25
ALDERSHOT CAMP	2·3	5·1	5·3	120	16
CHATHAM	4·0	9·5	9·4	192	18
LONDON.					
Grenadier Guards, 1st and 2d Battalions	2·6	5·0	4·9	74	25
ALDERSHOT CAMP.					
4th Light Dragoons	2·9	5·9	6·7	131	18
6th Battalion Military Train	3·6	5·6	5·7	116	18
Royal Artillery	5·1	8·2	7·9	92	32
Royal Engineers	2·2	4·4	6·7	174	12
15th Regiment Foot	1·7	4·0	4·7	68	24
96th „ „	1·6	4·6	4·7	79	22
99th „ „	3·6	6·0	5·8	132	16
Militia:					
Berks	1·8	3·3	4·2	96	14
Bedford	·6	4·4	5·2	211	8
Cheshire	1·8	3·1	4·3	58	23
Dublin City	2·1	6·3	6·2	106	22
South Down	·7	6·1	6·3	134	17
Donegal	1·9	5·9	7·0	181	13
Fermanagh	1·6	6·1	7·7	168	15
Dumfries	1·6	4·5	4·6	129	13
4th Lancashire	1·9	3·9	3·4	136	10
Limerick County	2·3	5·5	5·0	96	20
Louth Rifles	2·0	5·7	4·8	182	11
Royal Wilts	3·0	4·8	4·8	114	15
Nottingham	2·6	5·6	5.5	200	10
Roscommon	2·3	5·0	5·2	139	13
Wexford	4·5	6·7	6·9	49	50
2d Warwick	2·0	4·7	4·5	89	19
3d West York	2·4	5·0	4·6	112	16
CHATHAM.					
Royal Engineers and H. E. I. C. Engineers	2·4	5·8	5·5	165	13
1st, 2d, and 3d Depôt Battalion	4·3	10·4	10·2	198	19

SICKNESS IN THE ARMY.

TABLE V.—Progress of Measles since its Introduction into the Camp at *Aldershot* by the *Donegal* and *Fermanagh* Regiments of Militia.

DATE of ADMISSION.	MILITIA.							99th Regiment.	Total of Cases.
	Donegal.	Royal Berks.	Fermanagh.	2d Warwick.	Bedford.	South Down.	Dublin.		
19 December 1857	2	–	–	–	–	–	–	–	2
21 " "	1	–	–	–	–	–	–	–	1
23 " "	1	–	–	–	–	–	–	–	1
24 " "	2	–	–	–	–	–	–	–	2
26 " "	–	1	–	–	–	–	–	–	1
27 " "	1	–	1	–	–	–	–	–	2
31 " "	–	–	1	1	–	–	–	–	2
4 January 1858	1	–	–	–	–	–	–	–	1
6 " "	1	–	–	–	–	–	–	–	1
10 " "	–	–	2	–	–	–	–	–	2
11 " "	–	–	1	–	–	–	–	–	1
13 " "	–	–	–	–	1	–	–	–	1
19 " "	–	–	–	–	–	1	–	–	1
21 " "	–	–	1	–	–	1	–	1	3
23 " "	–	–	–	–	–	2	–	–	2
25 " "	–	–	–	–	–	1	–	–	1
26 " "	–	–	–	–	–	1	–	–	1
29 " "	–	–	–	–	–	1	–	–	1
30 " "	–	–	–	–	–	1	–	–	1
31 " "	–	–	–	–	–	1	–	–	1
1 February 1858	–	–	–	–	–	1	–	1	2
3 " "	–	–	–	–	–	–	1	–	1
4 " "	–	–	–	–	–	1	–	–	1
5 " "	–	–	–	–	–	3	–	–	3
6 " "	–	–	–	–	–	2	–	–	2
7 " "	–	–	–	–	–	–	–	1	1
10 " "	–	–	–	–	–	1	–	–	1
11 " "	–	–	–	–	–	–	–	1	1
Total Admitted	9	1	6	1	1	17	1	4	40
Discharged	9	1	6	1	–	7	–	1	25
Remaining, 12 February	–	–	–	–	1	10	1	3	15

Dr. Gibson, C. B., Deputy Inpspector General of Hospitals, remarks,—"No case of measles had occurred in the camp from 3d November 1856 (1st Battalion Rifle Brigade) until the arrival of the Donegal Militia. The men of the affected regiments have been confined as much as possible to their own lines; the other troops cautioned against going into them; and the South Down inspected by the surgeon twice a week. No death has occurred, the epidemic being very mild."

The Fermanagh Militia was last quartered at Enniskillen, where there existed an epidemic of measles. The regiment in passing through Dublin stopped for some days in the Linen Hall Barracks, where many of the men suffered severely from exposure consequent on insufficient accommodation. *G. L. Mansfield, Surgeon, Fermanagh Militia.*

OBSERVATIONS by Regimental Surgeons Explanatory of any Peculiar Features in their Returns.

Aldershot Camp. Deputy Inspector General Gibson, C.B.

4th Light Dragoons.

The number of venereal admissions is increasing, and confined principally to the volunteers who have recently joined. *F. H. Gaul, Surgeon, 4th Light Dragoons.*

Royal Artillery.

The proportion of sick to well is high. This is to be explained by the fact that upon the removal of two troops R.H.A. and one field battery, the sick and men deemed unfit for service in the field were left, and placed upon the strength of the troops and batteries remaining at this station. The troop of R.H.A. is made up of very young recruits, who are daily receiving injuries in the performance of their duties, *A. Scott Fogo, M.D., Assistant Surgeon, Royal Horse Artillery.*

Royal Engineers.

None of the admissions are of a serious nature. The cases of rheumatism and sore throat were probably caused by the damp and moist condition of the atmosphere. *J. Read, Assistant Surgeon, Royal Artillery.*

15th Foot.

No particular excess in the number treated of any particular disease has taken place since last report. *J. Menzies, Surgeon, 15th Foot.*

The Deputy Inspector General observes: "Ophthalmia has been epidemic in this regiment for several years."

96th Regiment of Foot.

Mild catarrhal affections prevailed, owing to the severity of the weather during the week; they were confined chiefly to the mucous membrane of the larynx, trachea, schneiderian membrane: in a few cases

cases the larger bronchial tubes were affected. All yielded readily to simple expectorants, diaphoretics, aperients, and counter-irritation. One case (of quinsy) was admitted, in which the right tonsil was slightly ulcerated; this was at once checked by the application of a 10-grain solution of caustic. Syphilis has been on the decrease, two cases only having presented themselves, both of which are doing well. *B. Swift, M. D., Surgeon, 96th Regiment.*

99th Regiment of Foot.

There has been a diminution in the number remaining sick now compared with last week. The chief disease treated was venereal and its consequences. *R. Cooper Todd, Surgeon, 99th Regiment.*

Bedford Militia.

The prevailing admissions during the week have been catarrh &c., syphilis, and psora, but none of the diseases are of a serious nature. Two cases of febris &c. have been admitted, the prevailing cause of which I can only attribute to the locality of the huts occupied by these men being close to the canal. *M. J. MacCormack, M. D., Surgeon, Bedford Militia.*

The Deputy Inspector General observes: "The huts referred to in this and the last return are a considerable distance from the canal. Several other regiments occupy huts equally near to it, but I have not found the men who inhabit them had been more frequently admitted with fever than those in the other parts of their lines; and this has been the general experience of medical officers hitherto."

2d Royal Cheshire Militia.

Venereal disease is still prevalent: and in consequence of the variable nature of the weather and dampness, catarrh has been of more frequent occurrence. *C. J. Sanford.*

Royal Dublin City Militia.

The cold felt by the troops while on duty appears to be the principal cause of disease: at the same time there has been no serious case admitted since last return, except that of acute rheumatism. *Caleb S. Wills, Assistant Surgeon.*

Royal

Royal South Down Militia.

The cases of measles are on the decrease; there has been but one attack during the week. The huts are inspected every day either by myself or assistant; and the regiment falls in for inspection (medical) every third day. The beds are carried out in the air every fine day. The prevalence of catarrh is attributable to the cold and dampness of the season, acting principally on the young soldier. *George Croker, Surgeon, Royal South Down Militia L. I.*

Donegal Militia.

No case of any very great importance presented itself during the past week; and, the weather having been milder, we have had a great diminution of catarrhal disease. The men of the Donegal Militia, previous to joining in the embodiment of the regiment in November last, in most instances lived at their own homes, on vegetable diet; the absence of animal food during the disembodied state so weakens the muscular system as to render it unable to resist the effects of exposure, and hence so many catarrhal cases. *R. Hudson Courtenay, M. B., Lond., Donegal Militia.*

The Deputy Inspector General observes: "The concluding remark of this report applies to all the Irish regiments; and is, no doubt, in part, if not the entire cause of their large per-centage of sickness."

Fermanagh Light Infantry.

There is no convalescent list allowed in this regiment, which may partly account for the large per-centage of sick in hospital. *George D. Mansfield.*

The Deputy Inspector General adds: "This is the general order to all regiments in the camp, 'The men must be either at their duty or in hospital.' On inquiry, I find that hawkers, who are allowed in the camp, sell to the men a badly-baked plum pudding, of which the young soldiers eat largely, and which, doubtless, produced the dysenteric cases mentioned in last week's report."

Dumfries-shire Militia.

The cases admitted during the past week possess no features of interest. The severity of the cold on several days of the week has induced a few cases of catarrh, and one of facial neuralgia; the men getting chilled by going into the open air when warm, and perspiring in a heated guard-room. There has been a considerable decrease of late in the venereal cases; and those under treatment have presented no malignant

malignant characters. In the cases of acute rheumatism, mentioned in this return, there have been no cardiac complications; and the patient who was discharged had the perfect use of all his limbs. *A. Mercer Adam, M.D., Surgeon, Dumfriesshire Militia.*

Louth Rifle Militia.

There was no case of peculiar interest during the last week, with the exception of that of one man who was admitted with diarrhœa, but on the night of the 10th was suddenly seized with dysentery, with some hæmorrhage from the intestines, and considerable prostration of the system, from which he has rallied, and is now much better, the dysenteric symptoms having ceased. *E. D. Dickson, Surgeon, Louth Rifle Regiment of Militia.*

Wexford Militia.

This return shows the number of cases are above the general average; but this is owing to the inguinal glands being implicated in the syphilitic diseases; as under even the most able and active treatment the glands affected are sluggish, and are with difficulty cured. *R. Biggs, M.D., Assistant Surgeon, Wexford Militia.*

2nd Warwick Militia.

The regiment generally is in a healthy condition. Cases admitted since last report of a mild character only. *E. Jackson, M.D., Surgeon, 2d Warwick Militia.*

3rd West York Militia.

During the past week scarcely anything has occurred to require comment. One man was admitted having every appearance of the commencement of variola; and he was removed at once to the infectious ward of the union hospital; however, it turned out in four days to be nothing further than an eruption from eating indigestible food, and the patient is convalescent. The venereal disease continues the prevailing one. The prevalence of measles amongst the children, and which was mentioned last week, seems to have abated. *T. Guy, M.D., Surgeon, 3d West York Militia.*

CHATHAM. Deputy Inspector General J. R. TAYLOR, C. B.

In reference to the larger proportion of sick among the depôt battalions at Chatham, as compared with other corps, I have to state that, in my opinion, this increase may be justly attributed to the great number of young recruits joining this garrison daily; many of whom are growing lads of delicate constitution, and are soon affected by the sudden change in their dress, and exposure at drill in shell jackets, and on guard, especially at night. I have also to observe, that for some time past, the barracks have been unusually crowded, owing to the general want of accommodation; and the duties also have been severe, inasmuch as the duty-men have not, on an average, more than four nights in bed in the week, and frequently not more than two, which must have a prejudicial effect on the general health of the men, especially in those of a young and weakly constitution.

I have also to remark that the amount of sickness in this garrison frequently appears greater than in others, owing to the regulation in force, that every man must be either at his duty or in hospital; consequently, there are no convalescents attending the hospital, which there are in most regiments and garrisons; so that in every case, however trivial, or if the man, which is not unusual in this garrison, has been lately invalided home, and although in other respects in tolerable health, he is compelled to come to hospital, although not labouring under any specific ailment. I think, in respect to such cases, a discretionary power ought to be given to medical officers.

The character of the present sickness (always excepting venereal) is chiefly catarrh, with affections of the throat and fauces, mostly of a mild type; but latterly there have been admitted several cases of disease of a more severe character, affecting either the pleura or one or both the lungs, attended with low typhoid symptoms; also three cases admitted under the head of catarrh and cynanche which have proved to be variola of a mild type; and one of erysipelas affecting the head and face, accompanied by general derangement of the stomach and biliary system. *A. Maclean, Surgeon, 1st Battalion.*

SHEET FOR USE IN ABSTRACTING AND CLASSIFYING DISEASES.
(Form N.)

(Form N.) SHEET FOR USE IN ABSTRACTING AND CLASSIFYING DISEASES.

Regiment or Corps } _____ Stationed at } _____

[N.B.—A Set of Four of these Sheets will be required for use in abstracting Diseases, &c.; viz., one for *Admissions*, one for *Discharges*, one for *Deaths*, and one for *Cases Remaining*.]

CLASSIFICATION OF CASES IN EACH OF THE WEEKS ENDING FRIDAY (12 P. M.)

Class.	Diseases, &c.	1	2	3	4	5	6	7	8	9	10	11	12	13	Total in 13 Weeks.
	ALL CAUSES.														
	SPECIFIED CAUSES.														
	(Classes.)														
I.	Zymotic Diseases.														
II.	Constitutional "														
III.	Local "														
V.	Violence "														
I.	Ord. 1. Miasmatic Dis.														
	1. Small-pox.														
	2. Measles.														
	3. Scarlatina.														
	4. Quinsy.														
	5. Catarrh and Influenza.														
	6. Ophthalmia (Purulent?)														
	7. Fever (C.C.)														
	8. Erysipelas.														
	9. Carbuncle and Boil.														
	10. Dysentery.														
	11. Diarrhœa.														
	&c. &c. &c.														

Supplemental List of Diseases of unfrequent occurrence.

Cases of Diseases in this List must be first entered against the name bearing the same reference number in the column headed "Diseases, &c.," and a second time against the name of the disease in this Supplemental List.

Class I.
Order 1.
1. Varioloid.
Chicken Pox. &c. &c.

(Form O.) SHEET FOR THE RESULTS OF THE CLASSIFICATION OF DISEASES, &c.

SECTION I.

ADMISSIONS INTO HOSPITAL,
In the week ending Friday (12 P.M.) the_____of_____

Regiment or Corps_____
Strength_____

	Class.	Diseases, &c.	Number of Cases.
		ALL CAUSES - - SPECIFIED CAUSES	
Supplemental List of Diseases of unfrequent occurrence.		(Classes.)	
	I.	ZYMOTIC DISEASES -	
	II.	CONSTITUTIONAL „ -	
	III.	LOCAL „ -	
	V.	VIOLENCE „ -	
(Cases of Diseases in this List must be first entered against the same reference numbers in the col. headed "Diseases, &c.," and a second time against the appropriate names below.)	I.	Ord. 1. Miasmatic Dis.	
		1. Small-pox - -	
		2. Measles - -	
		3. Scarlatina - -	
		4. Quinsy - - -	
		5. Catarrh and Influenza.	
		6. Ophthalmia (Purulent?)	
		7. Fever (C.C.) - -	
		8. Erysipelas - -	
		9. Carbuncle and Boil	
		10. Dysentery - -	
		11. Diarrhœa - -	
		&c. &c. &c.	
CLASS I. Order 1. 1. Varioloid. Chicken Pox. &c. &c.			

SECTION II.

DISCHARGES AND DEATHS
In the week ending Friday (12 P.M.) the_____of_____

Regiment or Corps_____
Strength_____

	Class.	Diseases, &c.	Cases Discharged.	Deaths.
		ALL CAUSES - - SPECIFIED CAUSES		
Supplemental List of Diseases of unfrequent occurrence.		(Classes.)		
	I.	ZYMOTIC DISEASES -		
	II.	CONSTITUTIONAL „ -		
	III.	LOCAL „ -		
	V.	VIOLENCE „ -		
(Cases of Diseases in this List must be first entered against the same reference numbers in the col. headed "Diseases, &c.," and a second time against the appropriate names below.)	I.	Ord. 1. Miasmatic Dis.		
		1. Small-pox - -		
		2. Measles - -		
		3. Scarlatina - -		
		4. Quinsy - - -		
		5. Catarrh and Influenza.		
		6. Ophthalmia (Purulent?)		
		7. Fever (C.C.) - -		
		8. Erysipelas - -		
		9. Carbuncle and Boil		
		10. Dysentery - -		
		11. Diarrhœa - -		
		&c. &c. &c.		
CLASS I. Order 1. 1. Varioloid. Chicken Pox. &c. &c.				

SECTION III.

CASES REMAINING IN HOSPITAL,
On Friday (12 P.M.) the_____of_____

Regiment or Corps_____
Strength_____

	Class.	Diseases, &c.	Number of Cases.
		ALL CAUSES - - SPECIFIED CAUSES	
Supplemental List of Diseases of unfrequent occurrence.		(Classes.)	
	I.	ZYMOTIC DISEASES -	
	II.	CONSTITUTIONAL „ -	
	III.	LOCAL „ -	
	V.	VIOLENCE „ -	
(Cases of Diseases in this List must be first entered against the same reference numbers in the col. headed "Diseases, &c.," and a second time against the appropriate names below.)	I.	Ord. 1. Miasmatic Dis.	
		1. Small-pox - -	
		2. Measles - -	
		3. Scarlatina - -	
		4. Quinsy - - -	
		5. Catarrh and Influenza.	
		6. Ophthalmia (Purulent?)	
		7. Fever (C.C.) - -	
		8. Erysipelas - -	
		9. Carbuncle and Boil	
		10. Dysentery - -	
		11. Diarrhœa - -	
		&c. &c. &c.	
CLASS I. Order 1. 1. Varioloid. Chicken Pox. &c. &c.			

(Form P.)

WEEKLY RETURN of ADMISSIONS, DISCHARGES, and Deaths, during the Week ending Friday (Night), the _____ of _____ 185 .

Regiment or corps - - - - -					
Strength on the _____ of _____	Officers - - -				
	Non-com. officers and men				
Stationed at - - - - - - -					

	Officers.	Non-commissioned Officers and Men.
Remained sick, as by last return on Friday night - - - -		
Admissions during the week - - - - - - - -		
Sum (A.) - - - - - - - - -		
Discharges during the week - - - - - - - -		
Deaths during the week - - - - - - - -		
Sum (B.) to be deducted from sum (A.) - - -		
Remaining from Friday night - - - - -		

GENERAL OBSERVATIONS explanatory of any peculiar features in the Return, such as an excess in the number of the cases of any particular disease, and of the mortality thence arising. Also the reasons of any unusual amount of zymotic disease in the regiment, with brief, terse, sanitary notes on the state of the regiment, its quarters, hygiology, &c., founded, as far as may be necessary, on the instructions for preparing the annual Report.

(Form Q.)

QUARTERLY REPORT of the REGIMENTAL SURGEON.

Regiment or corps - - - - -					
Average strength during the Quarter.	Officers - - - -				
	Non-com. officers and men				
Stationed at - - - - - - -					

RETURN of the Number of ADMISSIONS, DISCHARGES, and DEATHS, during the Thirteen Weeks ending Friday (12 P.M.), the _____ of _____ 185 .

	Officers.	Non-commissioned Officers and Men.
Admissions during the 13 weeks - - - - - - - -		
Discharges during the 13 weeks - - - - - - - -		
Deaths during the 13 weeks - - - - - - - -		
Average number remaining sick during the 13 weeks - - -		

Note.—The "Average number remaining sick" is obtained by adding together the numbers remaining sick on the last day of the previous 13 weeks, and at the end of each of the 13 weeks of the quarter just terminated; if the sum thus obtained be divided by 14 it will give the desired result.

GENERAL OBSERVATIONS explanatory of any peculiar features in the Return.

[This Return will be accompanied by a sheet similar to Form O, exhibiting in three sections the admissions, discharges, and deaths, and cases remaining from different diseases, &c.]

(Form R.) Classified Return of Wounds and Injuries received in Action on the _____

N.B.—Separate forms should be used for (1) Officers and for (2) Non-commissioned Officers and Men.

[This Form may be used for various purposes where Returns of Wounds and Injuries are to be made, the headings being altered according to circumstances.]

Regions of the Body Wounded or Injured.	ADMISSIONS with Wounds or Injuries.								DEATHS consequent on the foregoing Wounds and Injuries.							
	Total Wounded or Injured.	Projectile or Weapon by which the Wounds or Injuries were inflicted.							Among Total Wounded or Injured.	Projectile or Weapon by which the Wounds or Injuries were inflicted.						
		Cannon Ball.	Shell.	Grape Shot.	Rifle, Musket, Pistol Ball.	Sword, Lance.	Bayonet.	Other or undetermined means.		Cannon Ball.	Shell.	Grape Shot.	Rifle, Musket, Pistol Ball.	Sword, Lance.	Bayonet.	Other or undetermined means.
ALL WOUNDS and INJURIES -																
1. WOUNDS of the HEAD - - -																
2. WOUNDS of the FACE - - - -																
3. WOUNDS of the NECK - - - -																
4. WOUNDS of the CHEST - - -																
5. WOUNDS of the ABDOMEN - -																
6. WOUNDS of the BACK and SPINE -																
7. WOUNDS of the PERINEUM and GENITAL and URINARY ORGANS, not being Wounds of the Peritoneum - -																
8. WOUNDS of the UPPER EXTREMITIES - - - - - - - -																
9. WOUNDS of the LOWER EXTREMITIES - - - - - - - -																
10. WOUNDS with Direct Injury of the LARGE ARTERIES, not being Cases of Compound Fracture - - -																
11. WOUNDS with Direct Penetration or Perforation of the LARGE JOINTS -																
12 WOUNDS with Direct Injury of the LARGE NERVES, not being at the same time Cases of Compound Fracture																

N.B.—The Classification will be continued by the expansion of each of these 12 heads, so as to show the precise character of the Wounds and Injuries.

(Form S.) CLASSIFIED RETURN of Wounds and Injuries of every kind received in Action Abroad,

Admitted into the Hospital of the between the of and of 185 .

N.B.—Separate Forms should be used for (1) Officers and for (2) Non-commissioned Officers and Men.

[A separate Form may be used for Gunshot Wounds as distinguished from other Wounds.]

Regions of the Body Wounded or Injured.	Remained on the ___ 185 ___	Since Admitted.	Amputations.			Other Operations.	Died.	Discharged to Duty.	Transferred		Remaining on the ___ 185 ___	
			Primary.	Secondary.	Excision.				To other Hospitals.	To England.		
ALL WOUNDS and INJURIES -												
1. WOUNDS of the HEAD - - -												
2. WOUNDS of the FACE - - -												
3. WOUNDS of the NECK - - -												
4. WOUNDS of the CHEST - - -												
5. WOUNDS of the ABDOMEN - -												
6. WOUNDS of the BACK and SPINE -												
7. WOUNDS of the PERINEUM and GENITAL and URINARY ORGANS, not being Wounds of the Peritoneum -												
8. WOUNDS of the UPPER EXTREMITIES - - - - - - -												
9. WOUNDS of the LOWER EXTREMITIES - - - - - -												
10. WOUNDS with Direct Injury of the LARGE ARTERIES, not being Cases of Compound Fracture - - -												
11. WOUNDS with Direct Penetration or Perforation of the LARGE JOINTS -												
12. WOUNDS with Direct Injury of the LARGE NERVES, not being at the same time Cases of Compound Fracture												

N.B.—The Classification will be continued by the expansion of each of these 12 heads, so as to show the precise character of the Wounds and Injuries.

(Form T.)

CLASSIFIED RETURN of OPERATIONS performed, and of DEATHS following them, between the _____ day of _____ and the _____ day of _____ 185 , in the _____ Hospital.

NATURE OF OPERATIONS.			Operations performed.		Deaths following the foregoing Operations.	
			Primary.	Secondary.	Primary.	Secondary.
TOTAL						
AMPUTATIONS.	Upper Extremities.	Shoulder-joint				
		Arm				
		Fore-arm				
		Thumbs				
		Fingers				
	Lower Extremities.	Hip joint				
		Thigh — At upper third				
		Thigh — At middle third				
		Thigh — At lower third				
		Leg				
		Ankle-joint				
		Media-tarsus				
		Tarso-metatarsus				
		Toes				
EXCISIONS.	Upper Extremities.					
	Lower Extremities.					
Extraction of Balls and other foreign Bodies						
Trephining						
Ligatures of Arteries						
Other Operations						

(Form U.)

QUARTERLY REGISTER OF DEATHS,

For transmission to the Registrar-General of Births, Deaths, and Marriages, Somerset House, London.

Regiment or Corps _____.

RETURN of DEATHS of Officers, Non-commissioned Officers, and Men, belonging to the above Corps, in the Three Months ending the _____ day of _____ 185___.

No.	Regiment.	RANK.	NAME.	Completed Years of		When and where Died.	CAUSE OF DEATH. (The primary and only important secondary Diseases should be stated, with the time between the attacks and deaths, in hours, days, or or years.)
				Age.	Service.		

I certify that the foregoing is a true return,

(signed) _____

Note.—The death of every man belonging to the regiment during the quarter must be recorded in this register. A Return of the Names, Ranks, and Ages of Officers, Non-commissioned Officers, and Men *missing and believed to be deceased*, must be transmitted with this Return on separate sheets. This Register should be made up for the Quarters ending 31st March, 30th June, 30th September, and 31st December, in each year.

CAMBRIDGE UNIVERSITY.

REPORT of the Cambridge University Commissioners, appointed under the Act 19 & 20 Vict. c. 88.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled "An Act to make further Provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," respectfully submit to you, as Her Majesty's Secretary of State for the Home Department, in accordance with the provisions of the said Act, the following Report:—

In the execution of the powers vested in us by the said Act, we have deemed it our duty to submit to the several Colleges in the University of Cambridge, to which the same relate, the several Statutes which we have appended to this our present Report. These Statutes having been severally objected to by two-thirds of the Governing Bodies of the Colleges to which they were respectively submitted, we have not thought it consistent with our duty to substitute others for them, in the manner in which we were empowered to do by the Act, in those cases where we deemed it expedient. We therefore think it necessary to submit to you the following brief statement of the reasons that have prevented us from adopting this course in regard to the particular Statutes in question:—

In a Report which we had the honour to submit to you as Her Majesty's Secretary of State for the Home Department, on the 2d of July 1859, we stated that we had submitted to the Governing Body of St. John's College, a certain Statute, providing for the future payment to the University Chest, for purposes for the benefit of the University at large, of an annual sum

equal to five per cent. upon the distributable income of the College; and that this Statute having been objected to by two-thirds of the Governing Body of that College, we had not thought it expedient to substitute any other Statute for the same. In a similar Report, dated the 1st of August 1860, relating to Jesus College, we also stated that a Statute, similar to the one already referred to, had been submitted to the Governing Body of that College, and had been objected to by two-thirds of the same. The Statute in question was one which, as we considered, would be necessarily applicable to all the Colleges in the University, and as it had been already accepted by the Governing Body of Trinity College, we conceived that we had no choice but to submit it in succession to all the other Colleges. We have now to report that a Statute to the same effect having been laid in succession before the Governing Body of every one of the remaining Colleges in the University, has been objected to, in the manner required by the Act, by the Governing Bodies of the following Colleges, viz.: Clare, Pembroke, Gonville and Caius, Trinity Hall, Corpus Christi, King's, Queen's, St. Catherine's, Magdalene, Emmanuel, Sidney Sussex, and Downing.

As we have seen no reason to depart from the opinion expressed by us in the Reports already cited, that the particular Statute in question was one which necessarily required the concurrence of all the Colleges in the University, and that it was therefore incapable of any modification in the case of any one College only, we consider that there remains to us no choice, but to lay before you the Statutes thus proposed by us in the present Report.

It will be found that the Statute is identical in effect in the case of all the Colleges; the only difference arising from the circumstance that the College Offices, which it was necessary to enumerate, are not the same in all cases.

In the case of Corpus Christi College, we have further to report, that a certain Statute made by us entitled "De Vice Magistro," and numbered Statute X. of the body of Statutes submitted by us to the Governing Body of the College, having been objected to by two-thirds of their number, we have not thought it expedient to substitute any other Statute for the same, and have accordingly included it in this Report. The provisions of this Statute are the same in effect as have been generally introduced by us into the Statutes of all other Colleges, and have been for the most part accepted by them without

without objection. A similar Statute was, however, objected to by the Governing Body of Jesus College, and was accordingly included in our Report respecting that College.

We beg leave to request that you will be pleased to lay the Report before the two Houses of Parliament, in the manner required by the Cambridge University Act.

Given under our Common Seal, this Twenty-eighth day of December, in the year of our Lord One thousand eight hundred and sixty.

L. S.

STATUTES REFERRED TO IN THE FOREGOING REPORT.

STATUTE FOR CLARE COLLEGE.

THERE shall be paid by the College to the University Chest, to be applied to purposes for the benefit of the University at large, an annual sum equal to five per cent. upon the amount of the distributable income of the College, as herein defined.

The distributable income shall be taken to be the aggregate amount of all payments out of the College income in respect of,—

First. The Master's dividend and money allowances, and the estimated annual cost of his other allowances (if any), except of the free occupation and repairs of the lodge.

Secondly. The dividends and money allowances, and the estimated annual cost of all other allowances of the Fellows, Scholars, and Exhibitioners, including commons and rent of rooms, exclusive of the repairs thereof.

Thirdly. The stipends and like allowances of any person holding the office of Bursar, Dean, Steward, or any other College office, which is held by a member of the College or University.

Fourthly. The stipends and allowances (if any) of every College Lecturer or Tutor (exclusive of the payments of Students for tuition).

Provided that the payment hereby directed to be made to the University Chest shall not be compulsory until a similar clause, directing a like payment, shall have been incorporated in the Statutes of all other Colleges in the University, and in the meantime, there may be paid in lieu thereof such sum as may be directed by the Master and Fellows.

A Statute in the same words as the preceding was submitted to the Governing Body of Corpus Christi College, and to the Governing Body of Emmanuel College.

Statute for Pembroke College.

There shall be paid by the College to the University Chest, to be applied to purposes for the benefit of the University at large, an annual sum equal to five per cent. upon the amount of the distributable income of the College, as herein defined.

The distributable income shall be taken to be the aggregate amount of all payments out of the College income in respect of,—

First. The Master's dividend and money allowances, and the estimated annual cost of any of his other allowances, except of the free occupation and repairs of the lodge.

Secondly. The dividends and money allowances, and the estimated annual cost of any other allowances of the Fellows, Scholars, Sizars, and Exhibitioners, including commons and rent of rooms, exclusive of the repairs thereof.

Thirdly. The stipends and like allowances of the President, and of any person holding the office of Dean, Chaplain, Prælector, Treasurer, Bursar, or any other College office.

Fourthly. The stipends and like allowances (if any) of every College Lecturer or Tutor (exclusive of the payments of Students for tuition).

Provided that the payment hereby directed to be made to the University Chest shall not be compulsory until a similar clause, directing a like payment, shall have been incorporated in the Statutes of all other Colleges in the University, and in the meantime there may be paid in lieu thereof such sum as may be directed by the Master and Fellows.

Statute for Gonville and Caius College.

There shall be paid by the College to the University Chest, to be applied to purposes for the benefit of the University at large, an annual sum equal to five per cent. upon the amount of the distributable income of the College, as herein defined.

The distributable income shall be taken to be the aggregate amount of all payments out of the College income, in respect of,—

1. The Master's dividend and money allowances, and the estimated annual cost of any of his other allowances, except of the free occupation and repairs of the lodge.

2. The dividends and money allowances, and the estimated annual cost of any other allowances of the Senior and other Fellows, Scholars, and Exhibitioners, including commons and rent of rooms, exclusive of the repairs thereof.

3. The stipends and like allowances of the President, and of any person holding the office of Bursar, Steward, Registrary, Dean, or any other College office.

4. The stipends and like allowances of any College Lecturer or Tutor (exclusive of the payments of Students for tuition).

Provided

Provided that the payment hereby directed to be made to the University Chest shall not be compulsory until a similar clause, directing a like payment, shall have been incorporated in the Statutes of all other Colleges in the University, and in the meantime there may be paid in lieu thereof such sum as may be directed by the Master and Seniors.

Statute for Trinity Hall.

There shall be paid by the College to the University Chest, to be applied to purposes for the benefit of the University at large, an annual sum equal to five per cent. upon the amount of the distributable income of the College, as herein defined.

The distributable income shall be taken to be the aggregate amount of all payments out of the College income in respect of,—

First. The Master's dividend and money allowances, and the estimated annual cost of any of his other allowances, except of the free occupation and repairs of the lodge.

Secondly. The dividends and money allowances, and the estimated annual cost of any other allowances of the Foundation and other Fellows, Scholars, and Exhibitioners, including commons and rent of rooms, exclusive of the repairs thereof.

Thirdly. The stipends and like allowances of any person holding the office of Bursar, Steward, Librarian, Dean, or Chaplain, or any other College office.

Fourthly. The stipends and like allowances of any College Lecturer or Tutor (exclusive of the payments of Students for tuition).

Provided that the payment hereby directed to be made to the University Chest shall not be compulsory until a similar clause, directing a like payment, shall have been incorporated in the Statutes of all other Colleges in the University, and in the meantime there may be paid in lieu thereof such sum as may be directed by the Governing Body.

Statute for King's College.

There shall be paid by the College to the University Chest, to be applied to purposes for the benefit of the University at large, an annual sum equal to five per cent. upon the amount of the distributable income of the College, as herein defined.

The distributable income shall be taken to be the aggregate amount of all payments out of the College income in respect of,—

1. The Provost's dividend and money allowances, and the estimated annual cost of any of his other allowances, except of the free occupation and repairs of the lodge.

2. The dividends and money allowances, and the estimated annual cost of any other allowances of the Fellows and Scholars, including commons and rent of rooms, exclusive of the repairs thereof.

3. The stipends and like allowances of the Vice-Provost, and of any person holding the office of Bursar, Dean, or Chaplain, or any other College office.

4. The stipends and like allowances of every Tutor, College Lecturer, or other person officially engaged in the instruction or tuition of the College (exclusive of the payments of Students for tuition).

Provided that the payment hereby directed to be made to the University Chest shall not be compulsory until a similar clause, directing a like payment, shall have been incorporated in the Statutes of all other Colleges in the University, and in the meantime there may be paid in lieu thereof, such sum as may be directed by the Provost and Fellows at a general congregation.

Statute for Queen's College.

There shall be paid by the College to the University Chest, to be applied to purposes for the benefit of the University at large, an annual sum equal to five per cent. upon the amount of the distributable income of the College, as herein defined.

The distributable income shall be taken to be the aggregate amount of all payments out of the College income in respect of,—

1. The President's dividend and money allowances, and the estimated annual cost of any of his other allowances, except of the free occupation and repairs of the lodge.

2. The dividends and money allowances, and the estimated annual cost of any other allowances, of the Fellows, Scholars, and Exhibitioners, including commons and rent of rooms, exclusive of the repairs thereof.

3. The stipends and like allowances of any person holding the office of Bursar, Dean, Steward, Prælector, Librarian, or any other College office.

4. The stipends and like allowances of any College Lecturer or Tutor (exclusive of the payments of Students for tuition).

Provided that the payment hereby directed to be made to the University Chest shall not be compulsory until a similar clause, directing a like payment, shall have been incorporated in the Statutes of all other Colleges in the University, and in the meantime there may be paid in lieu thereof such sum as may be directed by the President and Fellows.

Statutes for St. Catherine's College.

There shall be paid by the College to the University Chest, to be applied to purposes for the benefit of the University at large, an annual sum equal to five per cent. upon the amount of the distributable income of the College, as herein defined.

The

The distributable income shall be taken to be the aggregate amount of all payments out of the College income in respect of,—

1st. The Master's dividend and money allowances, and the estimated annual cost of any of his other allowances, except of the free occupation and repairs of the lodge.

2d. The dividends and money allowances, and the estimated annual cost of any other allowances of the Fellows, Scholars, and Exhibitioners, including commons and rent of rooms, exclusive of the repairs thereof.

3d. The stipends and like allowances of any person holding the office of Bursar, or any other College office.

4th. The stipends and like allowances of any College Lecturer or Tutor (exclusive of the payments of Students for tuition).

Provided that the payment hereby directed to be made to the University Chest, shall not be compulsory until a similar clause, directing a like payment, shall have been incorporated in the Statutes of all other Colleges in the University, and in the mean time they may be paid in lieu thereof such sum as may be directed by the Master and Fellows.

Statute for Magdalene College.

There shall be paid by the College to the University Chest, to be applied to purposes for the benefit of the University at large, an annual sum equal to five per cent. upon the amount of the distributable income of the College, as herein defined.

The distributable income shall be taken to be the aggregate amount of all payments out of the College income in respect of,—

First. The Master's dividend and money allowances, and the estimated annual cost of his other allowances (if any), except of the free occupation and repairs of the lodge.

Secondly. The dividends and money allowances, and the estimated annual cost of all other allowances of the Fellows, Scholars, and Exhibitioners, including commons and rent of rooms, exclusive of the repairs thereof.

Thirdly. The stipends and like allowances of any person holding the office of Dean, Steward, or any other College office, which is held by a Member of the College or University.

Fourthly. The stipends and allowances (if any) of every College Lecturer or Tutor (exclusive of the payments of Students for tuition).

Provided that the payment hereby directed to be made to the University Chest shall not be compulsory until a similar clause, directing a like payment, shall have been incorporated in the Statutes of all other Colleges in the University, and in the mean time there may be paid in lieu thereof such sum as may be directed by the Master and Fellows.

Statutes for Sidney Sussex College.

There shall be paid by the College to the University Chest, to be applied to purposes for the benefit of the University at large, an annual sum equal to five per cent. upon the amount of the distributable income of the College, as herein defined.

The distributable income shall be taken to be the aggregate amount of all payments out of the College income in respect of,—

1st. The Master's dividend and money allowances, and the estimated annual cost of any of his other allowances, except of the free occupation and repairs of the lodge.

2d. The dividend and money allowances, and the estimated annual cost of any other allowances of the Fellows, Scholars, and Exhibitioners, including commons and rent of rooms, exclusive of the repairs thereof.

3d. The stipends and like allowances of any person holding the office of Bursar, Dean, Prælector, Steward, or Librarian, or any other College office.

4th. The stipends and like allowances of any College Lecturer or Tutor (exclusive of the payments of Students for tuition).

Provided that the payments hereby directed to be made to the University Chest shall not be compulsory until a similar clause, directing a like payment, shall have been incorporated in the Statutes of all other Colleges in the University, and in the meantime there may be paid in lieu thereof such sum as may be directed by the Master and Fellows.

Statute for Downing College.

There shall be paid by the College to the University Chest, to be applied to purposes for the benefit of the University at large, an annual sum equal to five per cent. upon the amount of the distributable income of the College, as herein defined.

The distributable income shall be taken to be the aggregate amount of all payments out of the College income in respect of,—

First. The Master's dividend and money allowances, and the estimated annual cost of any of his other allowances, except of the free occupation and repairs of the lodge.

Secondly. The dividends and money allowances, and the estimated annual cost of any other allowances of the Professors, Fellows, Foundation Scholars, and Minor Scholars, including commons and rent of rooms, exclusive of the repairs thereof.

Thirdly. The stipends and like allowances of the Vice-Master, or of any person holding the office of Chaplain, Dean, Bursar, Librarian, Steward, or any other College office.

Provided that the payment hereby directed to be made to the University Chest shall not be compulsory until a similar clause, directing a like payment, shall have been incorporated in the Statutes of all other Colleges in the University, and in the meantime there may be paid in lieu thereof such sum as may be directed by the Master, Professors, and Fellows.

Statute for Corpus Christi College.

Stat. X.—*De Vice-Magistro.*

Si Magister ob diutinam vel mentis vel corporis debilitatem vel aliam consimilem causam ad officia sua obeunda desperate inhabilis fiat, tunc Visitator, re investigata et petentibus aut Sociis in hanc rem convocatis aut Magistro ipso, nominabit quemquam ex Sociis qui Magistri locum occupet, quamdiu Magister ipse inhabilis sit, et recipiat tantam partem emolumentorum Magistri quantam Visitator assignet: proviso tamen quod pars ita assignata nunquam tertiam excedat; proviso etiam quod Magistro ipsi ædes primariæ sicut inferius præscriptum est reserventur.

Socius qui in Collegio adest senior, petentibus tribus aut pluribus cæterorum Sociorum, teneatur convocare Socios tum præsentes tum absentes ad hanc rem considerandum.

Socio per Visitatorem ita nominato titulus erit Vice-Magistro: munera omnia et officia et auctoritatem Magistri exercebit, stipendium assignatum recipiet, et Statuta omnia ad Magistrum spectantia observare tenebitur, donec Magister ipse vel in locum suum redeat vel Magistratum omnino relinquat.

Proviso semper quod si Magister rursus fiat habilis et officii capax, Visitator, re probata, Magistrum ita habilem factum in officium suum et locum et emolumenta integra reddet, et Vice-Magister locum inter Socios suum rursus occupabit.

Proviso etiam quod si Vice-Magister aut moriatur, aut officium suum resignet, aut Socius esse quoquo modo desinat, aut inhabilis fiat, Visitator iterum eodem modo et iisdem petentibus alterum ex Sociis in eundem locum constituet.

CAMBRIDGE UNIVERSITY.

REPORT of the CAMBRIDGE UNIVERSITY COMMISSIONERS, appointed under the Act 19 & Vict. c. 88.

(Presented to Parliament by Her Majesty's Command.)

Ordered, by The House of Commons, *to be Printed,* 13 *February* 1861.

Under 1 oz

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 16th May 1860, under the 19 & 20 Vict. c. 88, in respect of PEMBROKE, CLARE, TRINITY, ST. JOHN'S, and CORPUS CHRISTI COLLEGES, in the said UNIVERSITY.

Privy Council Office, 12 February 1861. } EDMUND HARRISON.

COPIES of STATUTES and SUPPLEMENTAL STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS, on the 16th of May 1860, under the 19th & 20th Vict. c. 88, for the Government and Regulation of PEMBROKE COLLEGE, in the said University of Cambridge.

STATUTES OF PEMBROKE COLLEGE, CAMBRIDGE.

WE, the Commissioners appointed by an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for the good "Government and Extension of the University of Cambridge, "of the Colleges therein, and of the College of King Henry the "Sixth at Eton," do hereby, in pursuance of the authority given to us by the said Act, make the following Statutes for Pembroke College, in the University of Cambridge.

STATUTA COLLEGII VALENCE-MARY, COMMUNITER NUNCUPATI PEMBROKE COLLEGE, IN UNIVERSITATE CANTABRIGIENSI.

AD honorem Dei et Domini nostri Jesu Christi ejusque sacrosanctæ Ecclesiæ ædificationem, ac Cleri ac sacri Ministerii ac Studiorum amplificationem, incipiunt Statuta illustris memoriæ Dominæ, Dominæ Mariæ de Sancto Paulo, Comitissæ de Pembroke, quæ ab ipsa primum anno Domini 1347,

cum matura et diligenti deliberatione, sancita, edita, et ordinata, atque a reverendo in Christo patre Thoma, Divina Providentia Eliensi Episcopo, roborata et confirmata, deinde a Visitatoribus illustrissimi Regis Edvardi Sexti et illustrissimæ Reginæ Elizabethæ correcta, approbata, et similiter confirmata, deinde anno regni illustrissimæ Reginæ Victoriæ octavo iterum renovata, nunc demum anno regni ejusdem vicesimo secundo a delegatis ab actu Parliamenti constitutis emendata et amplificata sunt, eo ut futuris temporibus ab omnibus et singulis in ipsa Domo habitantibus inviolabiliter observentur.

Caput I.—*De Communitate Custodis et Sociorum et de Scholaribus.*

1. Imprimis ordinatum est, quod Domus supradicta Collegium Valence-Mary sive Collegium Pembrochiense perpetuo appelletur. In qua sint tredecim Socii, Socio ex fundatione Archiepiscopi Grindal non computato, et viginti Scholares, ut in capite "De Scholaribus" plenius explicatur. Et Socii quidem sint perpetui juxta formam sequentium ordinationum; Scholares vero amovendi vel ad statum Sociorum, temporibus electionum, promovendi.

Si vero aliquando, Custodis et Sociorum judicio, bona et proventus Collegii, quæ ad usum Custodis et Sociorum assignata sint, majora sint quam quæ portionem trecentarum librarum communibus annis unicuique Sociorum persolvere sufficiant, liceat eisdem Custodi et Sociis numerum Sociorum sive in perpetuum sive in tempus aliquod præfinitum adaugere; aut quantum eis visum fuerit de prædictis bonis et proventibus impendere vel ad numerum Scholarium aut stipendia quorumvis Scholarium adaugenda, vel in usus quoscunque Collegii, qui maxime pietatem et bonas literas promovere posse videantur.

2. Sint etiam ex Sociorum numero quatuor sacris ordinibus initiati; proviso quod, cum non fuerit justus numerus sic initiatorum, electio proxime sequens ad Sodalitium sit Clerici, vel saltem sacris ordinibus mox initiandi.

3. Singuli etiam Socii quamprimum Magistros in facultate Artium vel Legum, vel Doctores in facultate Medicinæ, prout res postulet, sese fieri curent; nisi cum aliquo ad tempus per majorem partem totius numeri Magistri et Sociorum dispensetur.

4. Habeant etiam iidem Magister et Socii liberam, puram, et spontaneam inter se electionem, tam in Sociis eligendis, quam in aliis dictæ Domus Officiariis, juxta formas in Statutis de Electionibus expressas.

5. Similiter

5. Similiter habeant et Socii, vacante officio Magistri, consimilem eligendi suum Magistrum, sive Domus Custodem, liberam facultatem.

6. Sit itaque in dicta Domo unus Superior, cui cæteri omnes, tam Socii quam alii, quocunque nomine censeantur, obtemperare teneantur; Vir varia eruditione et rerum usu et experientia valens, cum iisdem commorans; qui Custos dictæ Domus pro tempore suo nuncupetur, juxta formam in Capite sequenti expressam.

7. Sit Collegii regimen penes Custodem et Socios, qui infra vocantur *Communitas;* nec nisi quæ aliter manifesto præceperint hæc Statuta, ulla Collegii ordinatio fiat, neque ullum Collegii negotium agatur, sine consensu majoris partis Communitatis, quæ si in duas æquales partes dissideat suffragio Custodis regatur. Liceat autem tali ordinatione dare auctoritatem Custodi et majori parti Sociorum in Collegio præsentium ordinaria omnia negotia expediendi, præter Computum et Electionem Sociorum et Collationem ad Beneficia.

Liceat Custodi, quoties negotia Collegii postulent, convocare Communitatem; et teneatur Custos eam ita convocare quum a tribus quibusvis Sociis rogatus sit.

Caput II.—*De Electione Custodis.*

1. Pro forma eligendi Custodis imprimis ordinatum est, quod, officio quomodocunque vacante, statim senior Socius præsens juxta statum suum in Domo det operam ut omnes Collegii Socios de ea re certiores faciat; deinde quinto aut sexto die, vel quamprimum postea major pars Sociorum in Universitate adfuerit, inter eos Senior cæteros convocet, injungatque omnibus et singulis, "Quod ipsi fideliter, odio, "amore, et cæteris pravis affectionibus depositis, solum Deum "et professionem suam Domui præstitam habendo præ oculis, "illum nominent et eligant quem coram Deo judicaverint ad "studium Sacrarum Literarum promovendum et dictæ Domus "negotia expedienda maxime idoneum, aptum, et propensum; "modo fidem Ecclesiæ Anglicanæ profiteatur, et sit ad mini-"mum Artium Magister."

2. Quo facto, invocata primum ab iisdem Spiritus Sancti gratia dicendo hymnum, "Veni, Creator Spiritus" et cætera, cum oratione, "Deus, qui corda" et cætera; idem Senior sumat sibi quatuor ex præsentibus maxime seniores, et hi quinque eligant inter se tres disquisitores votorum, unum videlicet primum, et postea alium, et consequenter tertium.

3. Qui tres, sic electi, primum conferant voces suas, deinde

singulorum Sociorum vota, seorsim aliquantulum, omnibus videntibus, sed non audientibus, diligenter perquirant et fideliter conscribant; videntibus ipsis deponentibus qualiter vota sua inserantur.

4. Et singuli deponentes seriatim secundum statum suum in Domo, his verbis aut similibus utantur: "Ego talis *N.* "nomino vel consentio in talem *N.* ad officium Custodis "hujus Collegii."

5. Quibus per ordinem conscriptis, statim in eodem loco, antequam Socii discedant, quæ scripta sunt in medium publicentur.

6. Quod si in aliquem unum major pars Sociorum consenserit, illius electio absque hæsitatione vel quæstione aliqua firma sit et rata. Quam electionem statim prænominatus Senior sub hac forma verborum pronuntiare teneatur: "Ego "talis *N.* nomine meo et omnium Sociorum meorum eligo "talem *N.* in Custodem hujus Domus."

7. Si autem contingat majorem partem Sociorum in nullum unum consentire, fiat iterato scrutinium per eosdem disquisitores; et sic quoties Sociis videbitur expedire, quousque in unum aliquem ad officium Custodis major pars consenserit.

8. Quod si in nullum per scrutinium conveniant ante tertium diem, tunc in quinque Socios seniores secundum statum suum in Domo statim compromittant; qui, vice omnium Sociorum, de idoneo Custode providebunt.

9. Quo electo per majorem partem istorum quinque, et electione prout superius pronuntiata, faciat eum idem senior coram cæteris Sociis fidem Ecclesiæ Anglicanæ profiteri, et promittere, "Quod officium Custodis pro suo tempore fideliter "geret; Ordinationes dictæ Domus illæsas, quantum in se est, "observabit; earundem etiam, quantum poterit, fidelem et "diligentem faciet exsecutionem." Et tradat illi librum Statutorum et claves cistarum. Et stabit sic electus in officio Custodis quamdiu in eodem se bene gesserit.

10. Et, quia idem Custos propter industriam suam est electus, et propterea mora ejus continua dictæ Domui est necessaria, ordinatum est quod dictus Custos per centum et octoginta dies a prima die Octobris usque ad primam diem Julii quoque anno in Domo commoretur, nisi cum aliqua parte talis commorationis dispensare majori parti Communitatis expedire videatur.

11. Custos unum e Sociis constituet, qui Collegii Præses vocetur, et absentis Custodis officio fungatur.

Caput III.—*De Sociis.*

1. Pro forma eligendi Socium ad hunc modum ordinatum est, quod ante finalem electionem faciendam præcedant coram Communitate tres vel quatuor nominationes præparatoriæ, prout Custodi et Sociis videbitur expedire; et in qualibet, præterquam in prima, injungat Custos omnibus et singulis Sociis in virtute professionis ab ipsis Domui præstitæ, "Quod "nominent talem, quem maxime idoneum secundum Statuta "Domus aut sciverint aut saltem firmiter crediderint;" nullum excipiendo, dummodo fuerit admissus in gradum Baccalaurei in facultate Artium vel Legum vel Medicinæ, cujuscunque nationis aut regni extiterit: possunt autem indifferenter eligere de studentibus Cantabrigiæ et Oxoniæ. Et Custos ipse perinde ac Socius post Socios nominet.

2. His ita peractis, veniat Communitas ad Electionem unius e Candidatis in ultima nominatione nominatis, et junior Socius præsens primus suffragium ferat, et cæteri ascendendo secundum statum suum in Domo, et Custos ultimus; et postea conferat se Custos cum duobus senioribus præsentibus secundum eorum statum in Domo ad aliquem locum seorsim, ad singulorum vota perscrutanda.

3. Et si in aliquem major pars Communitatis consenserit, tunc is publice per Custodem finaliter electus denuntietur forma verborum superius expressa in electione Custodis.

4. Et sic seriatim eligantur Socii alii forma prædicta, quousque completus fuerit numerus Sociorum eligendorum.

5. Quod si contingat aliquem talem æquales tantum habere voces, vel pauciores quam sit major pars Communitatis, tunc reincipiat Custos vota omnium perscrutari, quousque in aliquem unum major pars Communitatis consenserit, nisi major pars præsentium electionem differre decernet. Quod si in aliquem unum major pars totius Communitatis consenserit, tunc ille forma prædicta per Custodem denuntietur.

6. Vacante autem Sodalitio, Custos et Socii intra annum a tempore vacationis ad electionem Socii novi conveniant. Quod si nemo intra biennium a tempore vacationis a majori parte totius Communitatis Socius eligatur, tunc statim ad Custodem et quatuor Socios maxime seniores electio redeat, qui sine mora Sodalitium vacans impleant.

7. Et ipso die quo aliquis in dicta Domo fuerit electus Socius, faciat eum Custos coram omnibus Sociis præsentibus fidem Ecclesiæ Anglicanæ profiteri, et deinde affirmare, "Quod neque hæreditatis jure, neque testamenti aut doni "alicujus virtute, ullius generis proventus, sive temporales

" sive ecclesiasticos per totam vitam duraturos habet, quorum " annuus valor in toto conjunctim aut divisim excedat an- " nuum valorem dupli dictæ Domus Sodalitii; et quod, post- " quam per annum integrum hujusmodi proventus ultra dic- " tum valorem quiete possederit, a Sodalitio suo penitus " recedet."

Promittat etiam Socius electus " Quod summam fidelita- " tem erga Collegium præstabit; Statuta, Privilegia, Consue- " tudines, Libertates, et Ordinationes dictæ Domus jam facta " et futuris temporibus legitime facienda observabit; nec " procurabit malum Domui aut Sociis; nulli etiam revelabit " secreta Collegii aut Sociorum, unde vel ad Collegium vel " ad Socios infamia possit pervenire; nisi forte ei qui hujus- " modi secretis debuit interesse vel audire."

Denique promittat Socius electus in forma sequenti: " Ego, N., promitto ac spondeo me veram Christi religionem " omni animo complexurum; Scripturæ auctoritatem homi- " num judiciis præpositurum; regulam vitæ et summam fidei " ex verbo Dei petiturum; cætera quæ ex verbo Dei non " probantur pro humanis habiturum; auctoritatem Regiam in " hominibus summam et externorum Episcoporum seu alterius " Potestatis forinsecæ cujuscunque jurisdictioni minime sub- " jectam æstimaturum; contrarias verbo Dei opiniones omni " voluntate et mente refutaturum; vera consuetis, scripta " non scriptis, in religionis causa perpetuo antehabiturum."

8. Valor autem annuus Sodalitii æstimabitur, prout casus requiret, vel tempore electionis vel tempore quo primum dicti valoris proventuum possessio fuerit quieta; et erit medius valor annuus omnium, quæ per septem annos, Computum ultimo præteritum proxime antecedentes, alicui Socio, qui per totum id tempus in Collegio præsens fuerit, propter Sodalitium suum fuissent assignata.

9. In valore autem annuo proventuum sive temporalium sive ecclesiasticorum æstimando prius deducatur quicquid ex iis per necessitatem Legis sit solvendum.

10. Licebit autem Custodi quoslibet proventus et quodlibet beneficium una cum officio suo obtinere.

11. Nulli autem Socio licebit Sodalitium suum una cum beneficio, cujus advocatio sit in patronatu ipsius Collegii, etiamsi valor ejus antedictum dupli Sodalitii valorem non excedat, ultra annum integrum retinere, nisi, quo tempore ad illud beneficium præsentatus sit, venia ei concessa fuerit ex consensu majoris partis totius numeri Custodis et Sociorum.

12. Nemo qui sit maritatus in Socium eligatur nisi provi-

sionis

sionis in hoc Capite inferius contentæ virtute; et si quis Socius uxorum duxerit, statim Socius esse desinet, nisi sit Professor in academia, cujus muneris valor annuus non excedat octingentas libras pecuniæ, vel Socius ex provisione inferius sequente a duabus partibus totius Communitatis ut insignis electus.

13. Liceat Custodi et Sociis in hanc rem convocatis, et consentientibus tot suffragiis ad minimum quot numerum duarum partium Custodis et Sociorum omnium tunc temporis existentium excedunt (quorum valeat duo Custodis suffragium), in Socium eligere aliquem intra academiam Professorem, etiamsi uxorem duxerit, qui nec beneficium in ecclesia extra Universitatem habeat, nec Magister sit nec Socius alius Collegii: qui Professor sic Socius electus retinebit societatem quamdiu intra academiam Professor sit, sed non diutius.

Liceat etiam iisdem in Socium eligere aliquem virum ob literas vel scientiam insignem, etiamsi uxorem duxerit, qui nec beneficium in ecclesia extra Universitatem habeat, nec Magister sit nec Socius alius Collegii. Sed Socius sic electus Sodalitium amittet, si beneficium aliquod in ecclesia extra Universitatem adeptus fuerit.

Nullus Socius utriusvis harum provisionum virtute electus, jure vindicabit præsentari ad beneficium ullum, cujus patronatus ad Collegium pertineat; nec si uxorem duxerit cameras intra Collegium sibi assignari.

Non autem licebit ut plures quam duo secundum hanc et præcedentem sectionem uno tempore Sodalitia teneant.

14. Si quis Socius a Custode in Domum vocetur, redire teneatur, nisi causam absentiæ suæ sufficientem alleget, a majore parte totius numeri Custodis et Sociorum approbandam.

15. Si quis Sociorum palam a fide et communione Ecclesiæ Anglicanæ, uti legibus regni stabilita extat, secesserit, Custos Socios, excepto illo de quo res agitur, quamprimum fieri potest convocet; et si, post inquisitionem diligenter factam, Custodi et Sociis ita convocatis rem ita se habere constiterit, omne jus et emolumentum Sodalitii ex eo tempore amittat Socius prædictus, et alius in ejus locum eligatur.

Si quis Sociorum coram tribunali legitimam auctoritatem habente de crimine cujuscunque generis convictus fuerit, Custos Socios, excepto illo de quo res agitur, quamprimum fieri potest convocet; et si, post inquisitionem diligenter factam, Custodi et Sociis ita convocatis rem ita se habere constiterit, liceat Custodi, cum consensu majoris partis Sociorum ita con-

vocatorum, Socium prædictum a Collegio et omnibus ejus emolumentis amovere.

Si cuivis Sociorum coram Custode crimen aliquod probrosum objiciant duo Socii quicunque, a quo infamia prædicto Socio oritura sit ita ut Collegii societate frui indignus censeatur, Custos Socios, exceptis tribus prædictis, quamprimum fieri potest convocet; et si, post inquisitionem diligenter factam, Custodi et Sociis ita convocatis rem ita se habere constiterit, liceat Custodi, cum consensu majoris partis Sociorum ita convocatorum, Socium prædictum hujusmodi infamia notatum a Collegio et omnibus ejus emolumentis amovere.

Si quis Sociorum, Custodis judicio, crimen aliquod probrosum commiserit, a quo infamia ipsi oritura sit ita ut Collegii societate frui indignus censeatur, Custos, si ei visum fuerit, Socios, excepto illo de quo res agitur, convocet; et si, post inquisitionem diligenter factam, Custodi et Sociis ita convocatis rem ita se habere constiterit, liceat Custodi, cum consensu majoris partis Sociorum ita convocatorum, Socium prædictum a Collegio et omnibus ejus emolumentis amovere.

Caput IV.—*De Scholaribus.*

1. Quum minuscula Sodalitia a Smart et Lany condita vacaverint, nulla posthac in ea electio fiat. Sodalitiorum jam dictorum emolumenta simul atque ea ita vacaverint, cum emolumentis ad Scholares juxta indicem huic capiti appositum pertinentibus in reditus Scholaribus a Fundatrice designatis destinatos veniant, ita ut e tota pecunia accipiant,

Octo libere eligendi Scholares non minus sexagenas libras;
Sex libere eligendi Scholares non minus quadragenas libras;
Sex libere eligendi Scholares non minus vicenas libras.

In Scholarium titulis assignandis, Custos et Socii, quantum fieri potest, eorum nomina retineant qui Collegio beneficiorum auctores extiterunt.

2. Electio Scholarium ad Custodem et Socios pertineat.

In ea electione nullus competitor cæteris anteponatur, quod aut scholæ cujusdam alumnus sit, aut in quodam loco natus.

Scholares eligantur e Collegii alumnis, aut, si ita Custodi et Sociis visum fuerit, ex Academiæ alumnis, qui in studiis Collegio vel Academiæ propriis, aut in examinatione Custodis et Sociorum jussu instituta præstiterint.

Quum Scholaris satis diu permanserit ad Baccalaurei in Artibus gradum consequendum, Scholaris esse desinat.

Licebit

Licebit tamen Custodi et Sociis Scholari egregie merenti concedere, ut permaneat usque dum Magister Artium fieri possit, aut ad brevius aliquod tempus si Custodi et Sociis visum fuerit.

3. Liceat etiam Custodi et Sociis identidem aliquot Scholares eligere e competitoribus nondum in Academiam admissis, aut qui nondum in Collegii tabulas adscripti nuper in Academia habitare cœperint. Qui ita eligantur permaneant usque ad seriorem Scholarium electionem, aut in tempus a Custode et Sociis præfiniendum.

Qui modo prædicto electus fuerit Scholaris, nisi jam Collegii alumnus sit, statim det operam ut in Collegium admittatur, neque ullos percipiet reditus nisi jam Collegii alumnus factus in Academia habitare cœperit.

4. Liceat Custodi et Sociis Scholarem ax altera in alteram fundationem transferre, aut Scholari egregie merito, reditus e binis fundationibus proventuros eidem impertire.

5. Liceat Custodi et Sociis propter grave delictum vel propter negligentiam vehementem Scholarem aliquem a statu ejus penitus amovere, vel emolumenta ad statum illum pertinentia in aliquod tempus ei detrahere; nec Scholari ita amoto vel mulctato ulla appellatio sit permissa.

6. Prout Scholares antiquo more electi decesserint, Custos et Socii, quodcunque e prædictis institutis statim effici possit id efficiendum curent, et, quemadmodum ipsis visum fuerit, aut in majora aut in minora emolumenta Scholares prius eligendi copiam habeant.

7. Si quando reditus unde pendent emolumenta Scholaribus eroganda creverint aut decreverint, licebit Custodi et Sociis numerum Scholarium eligendorum pro re nata augere aut minuere.

Index.

Tres Scholares ex fundatione Gulielmi Moses.
Tres ex fundatione Caroli Parkin.
Unus ex fundatione Gulielmi Stuart.
Quatuor Scholares Græci Seniores appellati.
Quatuor Græci Juniores appellati.
Duo Scholares ex fundatione Gulielmi Smart.
Quatuor ex fundatione Radulphi Scrivener.
Unus ex fundatione Gulielmi Marshall.
Unus ex fundatione Joannæ Cox.
Unus ex fundatione Amatæ Livesey et Thomæ Hobbes.
Duo ex fundatione Roberti Mapletoft.
Unus ex fundatione Rogeri Long.

Caput V.—*De Electione Officiariorum et de Bonorum Domus cura atque administratione.*

1. Singulis annis in crastino Sancti Dionysii eligantur per majorem partem totius numeri Custodis et Sociorum præsentium Decanus Sacelli et Sacellanus; item Prælector et alii officiarii, inter quos sint Thesaurarius et Bursarius, qui una cum Custode in aliqua cista Sigillum Commune custodiant; ita ut quilibet illorum trium habeat unam clavem; ne aliquod scriptum vel charta sub sigillo eodem communi exeat, nisi prius per Custodem, Thesaurarium, et Bursarium diligenter examinetur, registretur et coram iisdem rite ex septima sectione Capitis primi sigilletur.

2. Et sit in Thesauraria registrum, in quo singula per Patens Sigillum transmissa fideliter inscribantur.

3. Dicti etiam Custos, Thesaurarius, et Bursarius terrarum et bonorum ad Collegium pertinentium curam gerant, atque etiam omnem pecuniam de reditibus vel aliunde quovis modo provenientem recipiant, et singulas expensas Domus faciant; ita ut in die, quo ratio reddenda sit, de receptis pariter et expensis fidelem possint reddere rationem.

4. Et post Officiariorum Collegii electiones peractas (quas modo exposuimus) parati sint eodem die vel intra tres hebdomadas sequentes Custos et prioris anni Thesaurarius et Bursarius ad reddendum rationes suas, in quo Computo omnes et singuli Socii interesse teneantur, nisi ob gravem causam a Custode et Sociis approbandam.

5. Tutores a Custode eligantur, cui etiam sit potestas eos amovendi; sed si Tutor sit etiam Socius, jus habeat appellationis ad Custodem et Socios.

6. Custodi et singulis Sociis solvantur stipendia solita.

7. Custodi et cuilibet Sociorum pro communis suis secundum ordinationem totius numeri Custodis et Sociorum modice assignetur.

8. Quod si Custodem vel aliquem Sociorum a Collegio abesse contigerit, rata portio pro tempore absentiæ suæ penitus subtrahatur.

9. Habeant autem Socii mensam inter se communem; ad quam etiam et ad horam statutam, quatenus eorum facultas permiserit, convenire teneantur; et Custos aut ejus Locumtenens dicat Gratias.

10. Habeatur convivium quotannis die Circumcisionis juxta antiquam consuetudinem.

11. In usum Scholarium assignetur quotannis summa trecentarum librarum ad minimum.

12. Sint

12. Sint præterea omnes servientes Collegio utiles, quos Custos, Thesaurarius, et Bursarius provideant: sub debito autem professionis Domui præstitæ eligant honestiores.

13. Quod superest autem ex proventibus Collegii, sive per Fundatricem ipsam sive per alios benefactores ei datis et concessis, id, modo omnia rite peracta sint et soluta, quæ vel per hæc Statuta vel per ordinationes illorum benefactorum testamentis, indenturis, seu aliis quibuscunque scriptis contentas et non legitime abrogatas, vel per aliam quamcunque legitimam ordinationem aut peragenda aut persolvenda requirantur, pro majoris partis totius numeri Custodis et Sociorum discretione ad emolumenta Custodis et Sociorum vel ad aliud quodcunque legitimum propositum, quod censeatur e re esse Collegii, assignetur; singulis Sociis æquam portionem, Custode autem, præter officii sui stipendium, ejus portionis quæ singulis Sociis persolvatur duplum accipientibus; et hac præterea conditione, ut semper justa aliqua illius pecuniæ summa ad Ædium sarta tecta conservanda remaneat.

14. Habeant etiam Thesaurarius et Bursarius curam communis Bibliothecæ Collegii, ac videant ne libri foras a quoquam absque speciali licentia majoris partis totius numeri Custodis et Sociorum præsentium efferantur, neve a quoquam ullo modo violentur.

15. Cubicula etiam sua eligant Socii, seriatim descendendo secundum statum suum in Domo.

Caput VI.—*De Sacello.*

1. Quia vero non solum rerum cognitionem et literas meliores in hoc nostro Collegio florere, sed et omnem pietatem vigere volumus, statuimus ut in termino pleno singulis diebus Dominicis et aliis festis mane et vesperi publicæ preces juxta consuetudinem Ecclesiæ Anglicanæ dicantur; Sacra etiam Communio, quum sunt qui communicare volunt, cum consensu Custodis iisdem diebus celebretur.

2. Horæ vero quibus preces sint habendæ tam in istis diebus quam in profestis per Custodem assignentur.

3. Decanus etiam sacelli habeat curam et omnium eo pertinentium; qui de precationibus debitis temporibus dicendis et Sacra Communione a se et cæteris Presbyteris per ordinem administranda diligenter provideat.

4. Liceat Custodi et Sociis identidem statuere qui celebrationi Divini Cultus adesse debeant et quibus abesse permittatur.

5. Commendationes vero Fundatricis et eorum qui præclare de Collegio meriti sunt, more consueto habeantur.

Postremo omnes hujus Collegii Socios et Studiosos vehementer in Domino hortamur, ut memores beneficiorum quæ hujus rei gratia a Domino acceperunt, optimis studiis et omni pietati se totos consecrent; Statuta nostra diligenter et fideliter observent; nullam callidam aut sinistram interpretationem contra ipsorum sensum adhibeant; sed firma ac rata habeant, suam et Ecclesiæ Dei utilitatem quærentes et omnes conatus ad Domini ac Servatoris nostri gloriam illustrandam conferentes: cui cum Patre et Sancto Spiritu sit omnis honor, gloria, et imperium in sæcula sæculorum.

Supplemental Statutes.

I.—*Payment for University purposes.*

[Objected to by the College, and cancelled accordingly.]

II.—*Preservation of Rights of existing Fellows.*

The emoluments, tenure of office, and other interests of a pecuniary nature of the present Master, and of all Fellows elected before the confirmation of these Statutes by Her Majesty in Council, shall be regulated by the previously existing Statutes: provided that if the Master or any such Fellow shall elect to be placed in these respects under the operation of the present Statutes, it shall be lawful for him to signify such election to the Master and Fellows by writing under his hand, and his rights in such respects shall be thenceforth governed by the present Statutes accordingly.

III.—*Power of bringing the new Statutes gradually into Operation.*

When and so soon as the interests to be regulated by the previously existing Statutes shall have expired or otherwise determined to such an extent as may, in the judgment of the Master and Fellows, enable the distribution hereinbefore described to be partially carried into effect without prejudice to such of those interests as may not have expired or otherwise determined,

determined, the Master and Fellows shall from time to time, as circumstances will permit, bring into operation so much and such part or parts of the prescribed distribution as they shall deem most expedient.

Given under our Common Seal this Sixteenth day of May, in the year of our Lord One thousand Eight hundred and Sixty.

L. S.

COPIES of STATUTES, numbered 1 to 29, and of SUPPLEMENTAL PROVISIONS, numbered 1 to 4, framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 16th of May 1860, under the 19 & 20 Vict. c. 68, for the Government and Regulation of CLARE COLLEGE, in the said University of Cambridge.

WHEREAS, the Statutes of Clare College, in the University of Cambridge, were first made and given to that College in the year One thousand three hundred and fifty-nine, by the Lady Elizabeth de Burgo, Countess of Clare, the Foundress of the said College, and were subsequently revised and altered in the year One thousand five hundred and fifty-one, by the Royal Commissioners appointed by King Edward the Sixth:

And whereas, many of the directions contained in the Statutes of the Foundress have become obsolete through lapse of time, or are found impracticable and inexpedient, and it is advisable that the same should be repealed, or altered, and that Statutes should be made for the government of the College more adapted to the practice of modern times, and calculated to promote learning and religious education, and the main designs of the Foundress and Benefactors:

And whereas, a body of Statutes, for such purpose, was framed by the Governing Body of the College, in pursuance of the provisions of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, and entitled "An Act to make "further Provision for the good Government and Extension

" of the University of Cambridge, of the College therein, and " of the College of King Henry the Sixth at Eton," and submitted to us, the Commissioners appointed by the said Act, for our approval before the end of the year One thousand eight hundred and fifty-seven, but for want of time was not approved by us, the said Commissioners, within the time prescribed by the said Act, We, the said Commissioners, do hereby make the several Statutes next following for the future regulation of Clare College, and for making further provision for maintaining and improving the Discipline, Studies, and good Government of the said College, which Statutes are numbered from No. 1 to No. 29 in the copy hereunto annexed; and do also enact the four Supplemental Provisions numbered from (1) to (4) in the same copy; that is to say:—

Regula Collegii De Clare.

Præfatio Dominæ Fundatricis.

" Universis Sanctæ matris Ecclesiæ filiis præsentem pagi- " nam inspecturis Elizabeth de Burgo Domina de Clare " salutem et memoriam rei gestæ. Experientia, quæ rerum " omnium est magistra, edocet manifeste quod in omni gradu " tam ecclesiastico quam civili non mediocriter proficit scientia " literarum: quæ dum a multis multipliciter inquiritur, in " Universitate (in qua vigere dignoscitur Studium generale) " perfectius invenitur. Quæ etiam cum inventa fuerit ipsius " auditores qui ejus dulcedinem gustaverunt, emittit aptos et " idoneos in Ecclesia Dei et republica juxta suorum meri- " torum exigentiam, gradus varios ascensuros. Cupientes " igitur hac consideratione inductæ ad augmentum cultus " divini reique publicæ commodum et profectum, hujusmodi " scientiam, quæ (morsu pestilentiæ sublata multitudine homi- " num) hominibus lamentabiliter deficere jam incipit, in " quantum nobis Deus dedit propagare ad Universitatem Can- " tabrigiæ Eliensi Diœcesi, in qua est congregatio studentium " convertimus oculos mentis nostræ, et Aulam inibi existen- " tem Aulam Universitatis communiter hactenus nominatam, " quæ de nostra fundatione jam existit, et quam domum de " Clare et non aliter volumus perpetuis temporibus nuncupari, " in Facultatibus de bonis nostris a Deo datis et in numero " studentium fecimus ampliari, ut pretiosa scientiæ margarita " ab eis studio et doctrina in dicta universitate inventa et etiam " acquisita non sub modio lateat sed ulterius divulgetur lucem- " que præbeat divulgata iis qui ambulant in semitis ignorantiæ " tenebrosis:

" tenebrosis: et ut scholares in dicta Domo nostra antea com-
" morantes sub firmioris pacis tutela et concordiæ commodo
" valeant studio liberius indulgere, quædam statuta et ordi-
" nationes de consilio peritorum fecimus infra scripta per-
" petuis temporibus duratura."

I.—*De Electione Magistri, Electionis forma, atque eligendi qualitate.*

Imprimis statuimus quod in dicta Domo nostra perpetuus sit magister, qui videat ut omnia quæ ad collegium pertinent recte fiant atque administrentur. Is in omnibus magistri et sociorum conventibus jure suo præsidebit. Licebit etiam eidem in iis rebus, quibus neque per hæc statuta neque per specialem aliquam magistri et majoris partis sociorum ordinationem antea provisum sit, sanæ disciplinæ et bono collegii regimini consulere id quod sibi optimum visum fuerit constituendo.

Circa præfectionem autem dicti magistri formam observari volumus ac statuimus subsequentem.

Cedente vel decedente magistro dictæ domus nostræ, seu ipsius magisterio quomodocunque vacante, proximo die post hujusmodi vacationem in dicta domo notam, senior secundum admissionem suam omnium sociorum tum domi præsentium, reliquis sociis omnibus qui tum domi sint convocatis, rem aperiat. Deinde in communi dies aliquis novo magistro eligendo neque prior undecimo neque serior tricesimo die post dictam vacationem notam statuatur. Quo facto dictus socius secundum admissionem suam senior omnium tum domi præsentium tenebitur absentium unumquemque sociorum quantum fieri potest per litteras ad eum rite transmissas et de vacatione magisterii et de die ad electionem novi magistri præstituto facere certiorem. Sin vacationis æstivæ tempore magisterium vacare contigerit differentur illa omnia usque in terminum proxime sequentem resque in eo statu esse reputabitur ac si primo demum die Octobris magisterium vacare innotuerit. Die ad electionem præstituto circa meridiem omnes socii qui tum domi sint congregent se in unum; ipsisque sic congregatis socius qui in socium dictæ nostræ domus omnium qui adsint prius admissus fuerit solenniter in medium profitebitur quod quibuscunque affectione, gratia vel odio inordinatis omnino semotis illum de Sociis dictæ nostræ domus, vel aliis aliunde, quem ad ipsius regimen secundum Deum et rectam suam conscientiam crediderit meliorem absque moræ dispendio nominabit in magistrum nostræ domus prædictæ.

Deinde ceteri qui adsint socii dicte nostre Domus consimilem per ordinem secundum ordinem admissionis sue professionem libere faciem. Quibus sic peractis senior et junior sororum presentium scrutinio procedat, et tam suum quam eligendi nomen ipsi primitus scribant aut scribi faciant sub hac vel consimili forma Ego N eligo N. in magistrum hujus collegii. Et deinde ceteri per ordinem singuli socii similiter scribant aut scribi faciant. Que carte duo socii predicti scrutinium faciant et vota publicent libere in communi. Facta autem publicatione illa in quem major pars sororum presentium consenserit cancellario dicte universitatis per dictos scrutatores, si ibi fuerit, aliquin per aliquem de sociis quem ad hoc socii predicti duxerint, seu eorum major pars duxerit, eligendum, libere presentetur. Qui quidem Cancellarius absque difficultate quacunque vel solemnitate, recepta prius informatione de forma predicta, ut premittitur, observata et majoris partis sororum presentium consensu comperta, absque examinatione alia electionem hujusmodi confirmare, et ipsum sic electum ad magisterium curam et regimen dicte Domus, admittere teneatur.

Quod si vota sororum presentium ita divisa fuerint ut non reperiatur aliqua pars a majori parte earum in magisterium convenienter et electiva, ad eligendum iterum et sepius quam dicta spatium quatuor dierum a presentis electionis die continue numerandorum aliquem non fuerit reliquit quousque a majori parte sororum tam Domi presentium aliquis in magistrum concorditer eligatur.

Statuimus autem et ordinamus quod ad electionem magistri nulla omnino procedatur nisi in ipso presens fuerit major pars numeri sororum.

Statuimus insuper quod si primo scrutinio electio magistri a majori parte sororum dicte Domus in forma superius expressa minime absoluta fuerit, sodus aliquis dicte domus prius absens interim redeat ad domum predictam, ad eligendum cum aliis sociis presentibus, eadem qua a ceteris professione facta prima vice absentia non obstante, libere admittatur.

Si vero electio magistri infra dictum quatuor dierum spatium a majori parte sororum tam Domi presentium in forma premissa concorditer minime fuerit absoluta, tunc elapso dicto spatio statim processus predictorum aliquem in magistrum dicte Domus (ex ipsa Domo, si aliquis ad hoc aptus et idoneus existat in eadem, aliquem aliquem aptum et idoneum ex dicta universitate) ad Cancellarium dicte universitatis vocari et de consensu dictorum assessorum a dicta universitate sibi

[illegible]

(*præter lectiones præscribendas*) assignaverint, aut minus solemne esse, ex vice-cancellarii decreto; proviso tamen quod si alicui scholarium aliquorum aliquarum in duas aequales partes dari debeat, alter e duobus in quos scholarium divisa fuerint in magistrum dare domus teneatur.

Ordinamus etiam quod nemo quem aliqua aliquarum vel præfectura quamvis libet in magistrum alicui domus aut prius earum Doctorem in aliqua facultate, vel Magistrum in Artibus aut in jure in Universitate Cantabrigiensi factis assumat.

Præterea autem magister aut scholares in aliquibus suis Cancellario dictæ Universitatis obedientiam in licitis et honestis quibuscunque sibi mandatum solvere et debitæ exequetur, ac statuta et ordinationes dictæ domus pro viribus observabit et observari faciet. Præterea etiam se ea omnia doctrinam et disciplinam Ecclesiæ nostræ Anglicanæ et Hibernicæ amplecti.

2.—*De Qualitate et numero Sociorum, et Forma Electionis eorum.*

Statuimus et ordinamus ut in dicta Domo sapientiæ ad minimum sint socii, nisi nonnulli aut ex scholaribus reliquum, aut impotentiæ causam dictandum magistralibus, aut alia aliqua magna inforsanda, et majore et majori parte omnium sociorum secundum ipsorum conscientias legitime tolerante hujusmodi domus sapientiæ socii essentiales. Tunc volumus ut cum possunt Cancellarii hi scholarum numerus diminutus secundum quod eorum videtur Cancellario et majore et majori parti omnium sociorum. Et simili prorsus ratione si facultates domus alio excrescant ut pluribus alendis sociis vel discipulis sufficiant, sociorum aut discipulorum numerus augebitur. Secundum enim dotem aut incrementum bonorum et possessionum collegii sociorum et discipulorum numerum etiam decrescere et augeri æquum est.

Eligantur in socios a semper qui moribus et eruditione dantur maximi, possint magister et socii quotannis deliberare confabulari ad Dei honorem et profectum bonarum literarum et scientiæ cum efficere melle et posse putabere: proviso semper, quod quicunque eligatur ut etiam in artibus ad minimum baccalaureus, aut alia aliqua facultate in Universitate Cantabrigiensi graduatus.

Tertia ad minimum pars sociorum in sacris ordinibus sint constituti. Quod si tempore electionis in societatem aliquam numerum minus quam tertia pars omnium sociorum per spatium sex mensium in sacris ordinibus fuerint, nemo in

 socium

socium hujus domus eligatur qui non in sacris ordinibus sit constitutus donec prædictus numerus eorum qui in sacris ordinibus constituti sint compleatur.

Electio sociorum in societates vacantes habeatur singulis annis aliquo die fixo per magistrum et majorem partem omnium sociorum constituto.

Triginta dies ante dictum diem electionis magister quas ei societates vacare constiterit in schedula quadam sacelli foribus affixa publicare teneatur; socii autem sollicitam faciant inquisitionem ut adolescentes reperiant quam maxime idoneos qui in sociorum numerum cooptentur.

Pridie electionis diei hora a magistro antea designata magister atque socii sese in unum congregent, socii nomina et cognomina eorum quos quisque eligendos duxerit edant deinde merita eorum quorum nomina edita fuerint, quantum satis sit, discutiantur, hora etiam electionis postero die mane faciendæ a magistro designetur. Tum die postero præstituta hora magister et socii omnes qui tum domi sint in sacellum sese congregabunt. Si major pars omnium sociorum tunc aderit, Magister et duo ex sociis (senior et junior omnium tum in sacello præsentium) seorsim in aliquo sacelli loco stabunt et primo suum, deinde eligendi nomen et cognomen scribent aut scribi facient sub hac vel consimili forma Ego N. eligo N. in socium hujus collegii. Deinde ceteri omnes socii similiter facient. Et in quem major pars præsentium convenerint, is pro electo habeatur.

Quem sic electum magister vel ejus deputatus statim eorum omnibus sociis præsentibus pronuntiare et publicare tenetur, et quam primum commode fieri poterit admittere.

Si vero in hujusmodi electione vota magistri et sociorum ita sint divisa ut media pars incluso magistro in unum aliquem consenserint, is pro electo habeatur.

Sin vota magistri et sociorum adeo sint divisa ut nemo in modo ac forma prædicta reperiatur electus, tunc iterum et, si opus fuerit, sæpius ad eligendum redeant per hanc et posterum diem quousque aliquis, ut præmittitur, electus fuerit.

Si vero nemo ante secundum diem unitum reperietur electus, tunc magister cum consensu duorum sociorum qui prius omnium præsentium admissi fuerint, aut alterius saltem eorum, aptum et idoneum socium sine morâ diffugio adsumat. Sin die constituto major pars omnium sociorum non aderit, electio in alium diem (modo intra mensem sit) a magistro et sociis præsentibus designandum differetur, quo die electio secundum regulas supra dictas, etiamsi major pars sociorum non aderit, omnino fiet.

Si plures simul societates vacaverint, eandem hanc in unaquaque

unaquaque vacatione supplenda formam peragi, separatim volumus.

Socii vero qui electi aut assumpti fuerint in admissione sua coram ipso magistro et sociis dictæ domus profitebuntur Anglicè sub hac formâ: "I. *A. B.*, do declare myself to be a member of the United Church of England and Ireland." Quod si recusabunt facere, electio eorum pro irrita atque invalida habebitur. Profitebuntur etiam quod statuta et ordinationes dictæ domus observantiasque ejusdem rationabiles et approbatas pro viribus fideliter observabunt et observari facient: quodque magistro dictæ domus aut ejus locum tenenti, obedientes erunt in licitis et honestis, et negotia dictæ domus sibi communiter vel divisim ad exsequendum commissa juxta sanam discretionem suam fideliter exsequentur, honoremque et utilitatem dictæ domus (quantum in se sit) consilio suo et auxilio juvabunt.

3.—*De Discipulis.*

De discipulorum ac pauperum studentium, qui in dicto collegio sustentandi sint, numero electione atque emolumentis hæc ordinanda duximus.

Imprimis de redditibus collegii portio quædam accurate infortiis deinde seponetur quæ non nisi ad benemerentes collegii alumnos pensula vel præmiis sublevandos impendetur. Quod ut commodius fiat octo volumus esse discipulos qui de portione prædicta libras ad minimum sexaginta, octo qui quadraginta, octo qui viginti percipiant annuatim. Eorum qui sexaginta ad minimum libras percipient annuatim tres nuncupentur discipuli de beneficio Elizabethæ Dominæ de Clare, duo discipuli de beneficio Magistri Freeman, duo discipuli de beneficio Magistri Diggons, unus discipulus de beneficio Doctoris Green. Eorum qui quadraginta ad minimum libras percipiant annuatim nuncupentur duo discipuli de beneficio Magistri Philpot, duo discipuli de beneficio Doctoris Lewis, unus discipulus de beneficio Magistri Stephenson, unus discipulus de beneficio Magistri Pyke, unus discipulus de beneficio Magistri Cherry, unus discipulus de beneficio Magistri Plumtre. Eorum qui viginti ad minimum libras percipiant annuatim duo nuncupentur discipuli de beneficio Honoratissimi Comitis Exoniensis, unus discipulus de beneficio Dorothex Honoratissimæ Comitissæ Exoniensis, unus discipulus de beneficio Johannis Trott, Equitis aurati, unus discipulus de beneficio Magistri Scrivener, unus discipulus de beneficio Magistri Marshall, unus discipulus de beneficio Magistri Bonage, unus discipulus de beneficio Magistri Wilson.

Nemo in discipulum hujus collegii eligatur nisi qui moribus, doctrina, et scientia, secundum examina quæ hanc in rem instituta fuerint, magistro et sociis sese approbaverit. Tenebuntur autem magister et socii bina ad minimum singulis annis discipulorum emolumenta juvenibus quibuscunque bene moratis, qui vel nondum ad academiam accesserint, vel primum ibidem agant terminum, consequenda ex examinatione proponere.

Nullus discipulus statum vel emolumenta discipuli ultra justum magisterii in artibus assumendi tempus retinebit, sed per quanto minora temporis spatia discipuli singula emolumenta percipere pergent, magistro et sociis licebit constituere.

Licebit etiam magistro et sociis discipulos benemerentes ad majora emolumenta promovere, et duo, si ita expedire visum fuerit, in eundem discipulum stipendia conferre.

Quod si quid de portione discipulorum, solutis unicuique emolumentis suis, supersit, hoc omne licebit magistro et sociis, prout sibi optimum visum fuerit in præmia ac subsidia benemerentium collegii alumnorum attribuere.

4.—*De receptione Extraneorum in Collegium.*

Volumus ut nemo habitare in dicta Domo admittatur sine expresso consensu magistri et majoris partis sociorum in collegio residentium. Illi autem diligenter, quantum fieri possit, videant ut qui admittantur probatæ vitæ atque inviolatæ famæ et mediocriter saltem doctrina ac scientia imbuti sint; nec quenquam in collegio commorari sinant, nisi qui moribus probis excolendis, lectionibus audiendis, et correctionibus debite perferendis, aptum se et idoneum ad discendum, studendum, proficiendum, ostendat.

5.—*De Ministris.*

Quot quoque tempore in dicto collegio ministri sint, quæ quisque officia exsequatur, et quod stipendium accipiat, a magistro semper et majori parte octo seniorum sociorum statuatur. Eligendi ministros potestas sit penes magistrum et majorem partem sociorum qui pro tempore domi sint; dimittendi autem penes magistrum proviso tantum quod dimittere teneatur magister quemcunque majoi pars sociorum domi degentium postulaverint.

6.—*De Visitatore.*

Visitator collegii nostri sit Cancellarius Universitatis Cantabrigiensis, ejusque sententiis ac decretis omnes et singulos magistrum

magistrum et socios dicti collegii nostri parere volumus ac mandamus, proviso quod dicto Cancellario duo assessores a dicta Universitate assignati in omni visitatione collegii assideant, nihilque ab eo decernatur nisi cum et de consilio et assensu unius saltem duorum dictorum assessorum. Nolumus autem magistrum penitus a collegio amoveri, nisi cum et de consilio et assensu amborum dictorum assessorum.

Capiantur dicti duo assessores ex doctoribus Theologiæ vel juris, si qui sint tum in Universitate commorantes; sin minus, ex Magistris Artium.

Volumus dictum Cancellarium dictum nostrum collegium visitare atque in statum ejus omnem inquirere et quicquid in eo pravum, perversum aut inordinatum aut in magistro aut in sociis repererit debite juxta juris et nostrorum statutorum atque ordinationum exigentiam cum assensu duorum assessorum aut unius saltem, ut superius præscribitur, corrigere et punire, ubicunque aut magister aut major pars omnium sociorum hujusmodi visitationem requisiverint, itemque, nulla magistri aut majoris partis sociorum requisitione præcedente, si ita sibi opus esse visum fuerit. Nullum tamen ex hujusmodi visitatione præjudicium jurisdictioni et potestati magistri quoad futuros sociorum atque alumnorum collegii excessus puniendos generari volumus.

Quicquid his statutis Cancellario faciendum attribuitur, hoc idem eo absente aut etiam si ei placeat præsente, a procancellario fiat, nisi ubicunque forte magistrum dicti nostri collegii procancellarii munus gerere continget.

7.—*De Custodia Bonorum Collegii, et de Sigillo Communi.*

Eligantur singulis annis a magistro et majori parte omnium sociorum dictæ Domus duo socii qui una cum magistro curam gerant sigilli communis, pecuniæ, vasorum aureorum et argenteorum et jocalium Domus. Sigillum commune servetur in cistula quadam sub tribus seris quorum clavis una unius fabricæ penes magistrum, et aliæ duæ, diversæ fabricæ, sint penes duos socios prædictos.

Vasa aurea et argentea et si quid præterea pretiosum sit quod quotidianis usibus non subserviat in thesauraria conserventur, nec unquam ex ea promantur nisi singulis rebus in registro quodam eorum manibus qui promant descriptis.

Reditus omnes qui de bonis et possessionibus collegii veniant, et omnis pecunia quæ quocunque nomine collegio solvatur, aut apud mensarium quendam a magistro et majori parte octo seniorum sociorum approbatum deponentur, aut

alia quadam ratione si tutius magistro et majori parti octo seniorum sociorum visum fuerit conservabuntur, sub custodia magistri et duorum sociorum prædictorum ita ut nihil inde promi possit nisi expresso cum consensu magistri et amborum dictorum sociorum. Fiat autem semper liberatio tam pro necessariis expensis domus et salariis magistri, sociorum, discipulorum atque ministrorum, quam alias ad res prout magistro et majori parti octo seniorum sociorum justum et expediens visum fuerit.

8.—*De Evidentiis et Munimentis Collegii.*

Statuimus et ordinamus ut omnia munimenta evidentiæ cæteræque chartæ quarum tuta conservatio collegii interesse videatur in cistis et capsulis decenter in loco quodam securo reponantur quarum claves magister aut ejus locum tenens servet. Hæc omnia bursario seu cuivis de sociis libere inspicere liceat. Nihil autem nisi gravi de causa per magistrum, aut, eo absente, ejus locum tenentem approbanda inde expromatur. Et si quid forte necessario efferendum sit, in registro quodam res extracta, nomen extrahentis, et dies quo extrahitur scribantur.

9.—*De Electione et Officio Bursarii.*

Eligatur singulis annis e sociis a magistro et majori parte omnium sociorum bursarius qui omnium bonorum et possessionum reditus, proventus, et vectigalia recipiat, ea cum primum receperit sub prædicta custodia reponenda curet, et pecuniam, quam a magistro et duobus prædictis sociis pro expensis domus atque aliis debitis solvendis acceperit, fideliter administret.

10.—*De Computo reddendo.*

Omnium receptorum et expensarum computus reddatur singulis annis bis coram duobus auditoribus a magistro et majori parte omnium sociorum singulis annis ad hoc specialiter assignatis. Computo autem ab ipsis confirmato, auditores rationem reddant magistro et sociis die quodam a magistro statuendo intra mensem post festum sancti Michælis Archangeli, et alio die infra mensem post festum Paschæ.

Omnia autem jocalia vasa aurea et argentea et si quid præterea pretiosum sit quod in thesauraria custodiri debeat, quotannis coram magistro et duobus sociis a magistro et majori parte omnium sociorum singulis annis ad hoc specialiter electis inspiciantur et recenseantur.

11.—*De*

11.—*De Agrorum, Fundorum, et Prædiorum Collegii locatione.*

Rectoriarum, maneriorum, ædificiorum, hortorum, fundorum, agrorum, tenementorum, silvarum, et firmarum omnium cujuscunque generis ad collegium pertinentium locatio penes magistrum et majorem partem octo seniorum sociorum perpetuo sit.

12.—*De collatione Beneficiorum.*

Si quod beneficium aut dignitas promotiove ecclesiastica, cujus ad collegium collatio pertinet, forte vacaverit, volumus illius præsentationem infra mensem postquam vacatio nota fuerit socio secundum suam in sociorum numerum admissionem maxime seniori, ex iis qui in presbyterorum ordinem ante quinque annos a perfecto magisterii in artibus aut in jure gradu exactos admissi fuerint, sive domi sive absens fuerit, per magistrum sive ejus locum tenentem deferri, si non gravis forte causa per ipsum magistrum et majorem partem omnium sociorum approbata obstiterit. Quod si ei propter causam prædictam non deferatur, aut si delatam accipere noluerit, tum proxime seniori e presbyteris supradictis socio deferatur, nisi gravis (ut supra dicitur) causa obstiterit: et ita deinceps.

13.—*De Magistri et Sociorum conventibus.*

Duo singulis annis conventus fiant magistri et octo seniorum sociorum ad negotia collegii transigenda. Semel autem in unoquoque anno magistri atque omnium sociorum conventus habeatur. Sin inciderit aliquid ejusmodi, ut aliis quoque temporibus præsentia aut octo seniorum aut omnium sociorum in collegio opus esse videatur, magister eos convocet.

Teneatur magister conventum omnium sociorum convocare si quando major pars omnium sociorum per scriptum aliquod manibus suis obsignatum illud requisiverint.

In omnibus magistri atque octo seniorum sociorum conventibus seniorum tum domo absentium vices juniores qui ordine proximi adsint sustineant.

In conventibus quibuslibet magistri et sociorum magister nullam vetandi potestatem sed simplex tantum suffragium habeat. Ubicunque autem vota magistri et sociorum in duas æquales partes divisa fuerint, sententia magistri prævaleat.

In absentia magistri locum ejus tam in conventibus sociorum quam alias teneat is de sociis qui ab ipso magistro fuerit per scriptum assignatus.

Si magister a conventu aliquo rite vocato absit, nullo ab ipso assignato socio qui vices ejus sustineat, tum senior secundum admissionem suam omnium sociorum qui adsint locum ejus teneat.

Vacante etiam magisterio, senior secundum admissionem suam omnium sociorum qui adsint locum magistri teneat.

14.—*De Magistri et Sociorum aliorumque in Collegio commorantium residentia.*

Volumus magistrum hujus collegii per sex menses quolibet anno in eodem residere, atque ita quidem ut per majorem uniuscujusque termini partem temporibus continuis vel discontinuis supputandum ibidem habitet, nisi in negotiis collegii promovendis occupatus, aut graviori aliqua corporis infirmitate impeditus, aut propter aliam quandam gravissimam causam cum consensu majoris partis omnium sociornm absit.

Statuimus et ordinamus quod socii dicti collegii a magistro rite vocati in collegio adsint, ubicunque eorum præsentia vel ad gerenda negotia, vel ad munera obeunda opus sit, et tamdiu quam opus sit.

Singulis officiariis collegii per quam quisque anni partem et quo modo ac forma in collegio commorentur magister et major pars omnium sociorum, habita ratione necessitatum atque utilitatis dicti collegii, statuant.

Omnes alumni collegii infra gradum baccalaurei in artibus constituti per illam uniuscujusque termini partem quam magister statuerit in Universitate commorentur.

Eorum qui in statu pupillari sint nemo absque licentia magistri neque ex academia exeat, neque extra collegium in oppido pernoctet.

Nullus graduatus qui non sit socius in collegio commoretur contra voluntatem magistri et majoris partis sociorum in collegio degentium.

15.—*De Cubiculorum distributione.*

Magister collegii qui pro tempore sit cubicula ea omnia quæ juxta Bibliothecam versus occidentem in magistri usus constructa vel accommodata sunt possideat. Socii cameras vacantes sibi eligant secundum ordinem admissionis suæ. Alii inhabitantes quocunque nomine censeantur habeant cameras juxta assignationem magistri. Is autem, in assignatione camerarum discipulos cæteris collegii alumnis, quoad fieri possit, anteponat.

16.—*De*

16.—*De communis Magistri et Sociorum.*

Statuimus quod magistro pro communis suis sex solidi in diem attribuantur: sociorum autem cuilibet pro communis suis secundum ordinationem magistri et majoris partis octo seniorum sociorum modice assignetur.

Quod si magistrum vel aliquem sociorum a collegio abesse contigerit, rata portio pro tempore absentiæ suæ penitus subtrahatur.

17.—*De Divinis Officiis.*

Statuimus et ordinamus ut preces matutinæ ac vespertinæ singulis diebus per eam partem anni quam magister statuerit juxta morem et ordinem Ecclesiæ unitæ Anglicanæ et Hibernicæ horis idoneis per magistrum designatis intra sacellum collegii celebrentur.

Eorum autem qui in dicto collegio commorentur, tam de præsentia in celebrandis divinis exigenda, quam de absentia excusanda, ordinationes edere editasque mutare prout optimum sibi visum fuerit, magistro atque majori parti omnium sociorum licebit.

18.—*De Refectionibus in Aula capiendis.*

Volumus quod omnes socii, discipuli et alumni qui in collegio commorentur ad pulsationem campanæ ad hoc designatæ hora statuta ad capiendas refectiones in aulam communem conveniant, et ibi prandium simul faciant, nisi ex causa rationibili aliquis absit. Volumus insuper quod ante et post receptionem cujuslibet refectionis in aula agantur Deo gratiæ.

19.—*De Sociorum, Discipulorum cæterorumque qui in dicto Collegio commorentur Officiis ac Moribus.*

In magistrum præcipue curam omnem collegii incumbere volumus, socii vero quantum possint magistro adsint et in virtute, honestate ac disciplinis bonis conservandis adjuvent, ipsique speculum virtutis atque industriæ cæteris infra se positis præbeant.

Omnes socios dicti collegii ad gradum magisterii in artibus vel in jure, aut ad Doctoratum in medicina progredi, et eundem juxta statuta academiæ suo quemque tempore conscendere volumus. Quod si quis tempore quo primum fieri licebit faciendum neglexerit, omne emolumentum quod a societate sua esset percepturus tamdiu amittat donec huic ordinationi

nostræ satisfecerit, nisi ei ob rationabiles causas per magistrum aut ejus locum tenentem et majorem partem omnium sociorum longius tempus ad prædictum gradum suscipiendum concessum fuerit.

Discipuli imposita sibi a magistro et sociis munera fideliter exsequantur, omnes autem qui in collegio commorentur tam discipuli quam cæteri qui in statu pupillari sint disciplinis bonis secundum ordinationes magistri et sociorum diligenter operam dent, assignatas sibi lectiones studiose audiant, erga magistrum et cæteros qui sibi præpositi fuerint sese submisse et reverenter gerant, probitatem sanctitatem honestatem vitæ atque morum strenue colant.

Statuimus porro mandamus et hortamur ut magister socii, discipuli et cæteri in collegio degentes concordiam unitatem, pacem, et mutuam inter ipsos caritatem pro virili alant, foveant, et observent.

20.—*De Tutorum, Lectorum, et Decani electione et officio.*

Ad instituendos rite discipulos et cæteros juvenes qui una cum discipulis habitare in dicto collegio admissi fuerint, unus semper sit decanus et tot tutores et lectores quot pro numero instituendorum et varietate studiorum quibus opera navanda sit magistro et majori parti octo seniorum sociorum opus esse videatur.

Tutores a magistro designentur, ita tamen ut nemo tutelam gerat, cui duæ partes omnium sociorum repugnent. Amovendi autem a tutela alumnorum collegii tutores potestas penes magistrum et majorem partem omnium sociorum semper sit.

Lectores et decanus eligantur singulis annis a magistro et majori parte omnium sociorum.

Magister, tutores, lectores et decanus omnia quæ ad discipulorum cæterorumque collegii alumnorum studia pertinent communi inter se consilio ordinent, provideantque ut rationes studiorum atque examinum in dicto collegio ad studia atque examina academiæ semper quoad fieri possit accommodentur.

Tutoris officium sit pupillorum suorum moribus invigilare, eosque prout necessitas postulet excitare, monere, corripere, et in omnibus quæ ad recte studendum aut pie et honeste vivendum pertinent consiliis suis proinde ac si in parentis loco fuerit adjuvare. Pupilli tutores suos debita reverentia colant. Nemo autem qui in statu pupillari sit in dicto collegio sine tutore commoretur.

Decani officium erit divina in collegii sacello celebrare vel celebranda curare prout per ordinationes magistri et sociorum

quoque

quoque tempore sanciatur, et videbit idem ne quis inter divina celebranda indigne sese vel indecore gerat.

Magister aut ejus deputatus, lectores, tutores et decanus quot et quæ lectiones in unoquoque termino habeantur, quis quaque in re prælegat, et quibus horis, antea diligenter tractent et constituant; itemque cæteris de rebus quæ ad scientiæ et literarum studia in dicto collegio promovenda spectare videantur, statis temporibus consulant.

Quantum pecuniæ propter tutelam (ut vocatur) illi qui in statu pupillari sint debeant pensitare, id si nulla academiæ ordinatione præscriptum fuerit, magister et major pars octo seniorum sociorum semper definiant. Ea autem pecunia in cistam communem redigatur et postea omnis inter tutores et lectores secundum judicium magistri et majoris partis octo seniorum sociorum dividatur. Lectoribus autem de bonis etiam collegii aliquid attribui volumus, sicut inferius ordinatur.

Omnes qui in statu pupillari sint lectiones sibi a magistro aut tutore suo commendatas diligenter audiant, utque profectus eorum clarius appareat examina statis temporibus secundum ordinationem magistri et sociorum in collegio degentium subeant.

Examinatores tam ad hæc quam ad alia examina peragenda eligantur quotannis eodem quo lectores tempore a magistro et majori parte omnium sociorum.

21.—*De Officiis casu vacantibus.*

Quod si officium aliquod annuum ante finitum annum vacare contigerit, tunc a magistro et sociis domi degentibus alius sufficiatur.

22.—*De Stipendiis Officiariorum.*

Statuimus quod bursario, decano, lectoribus, concionatoribus, et aliis, si qui fuerint, officiariis stipendia assignentur juxta sententiam magistri et majoris partis omnium sociorum.

23.—*De redituum Collegii distributione facienda.*

Omnium de bonis ac possessionibus collegii proventuum, quæ vel per fundatricem ipsam, vel per soila benefactores, excepto solummodo Doctore Blithe, collegio d ta et concessa sint, dispositionem fieri volumus atque ordinamus subsequentem.

Primum pars octava omnium redituum quæ de bonis et possessionibus collegii singulis anni semestribus provenerint, postquam deducta fuerint omnia vectigalia atque pensiones quæ per necessitatem legis sint solvenda, seponatur: pecunia autem ita seposita non nisi ad ædium ædificiorumque ad collegium pertinentium sarta tecta conservanda, aut ad nova ædificia exstruenda, aut etiam alias ad augendam in perpetuum prædiorum bonitatem prout magistro et majori parti octo seniorum sociorum expedire visum fuerit, impendatur.

Deducatur deinde pro mercedibus ministrorum, pro communis magistri et sociorum, cæterisque expensis domus, pro bibliotheca, quantum sufficere videatur, et si quid præterea sit quod collegii nomine legitime debeatur.

Postea officiariis collegii stipendia sua persolvantur. Et si quid aliud sit quod vel per hæc statuta vel per aliam quamcunque legitimam ordinationem solvendum aut peragendum requiratur, id rite perficiatur.

Si quando pars illa redituum quæ ut supra præscribitur reficiendis ædificiis et prædiorum pretiis ampliandis destinatur, magistro et majori parti octo seniorum sociorum parum sufficiens esse videatur, volumus eos quantum opus sit de reliquis reditibus collegii adjicere. Quin ad alia etiam legitima proposita, quandocunque ipsis collegii interesse videatur ut efficiantur, quantum æquum sit aut conveniens de bonis collegii eosdem conferre volumus.

His omnibus rite perfectis, quod superest de proventibus collegii in partes CXIII dividatur, quarum XVII magister, V unusquisque octo seniorum sociorum, reliquorum unusquisque IV capiat; XX autem pro discipulorum portione seponantur, et ad subsidium discipulorum atque aliorum bene merentium collegii alumnorum secundum hæc statuta vel ordinationes magistri et majoris partis omnium sociorum, impendantur.

Quod si forte aliquo anno eveniet ut summa, quæ inter magistrum socios et discipulos dividenda relinquitur sex mille libras excedat, pars residua qua summa sex millium librarum excedatur ad augendum in posterum numerum sociorum vel discipulorum seponetur.

Quandocunque autem summa illa residua una cum proventibus pecuniarum antea sepositarum in eam magnitudinem constanter creverit ut magistro et majori parti sociorum pluribus discipulis aut sociis sustentandis sufficere videatur, tenebuntur magister et socii aut sociorum aut discipulorum numerum, prout ipsis magis expedire videatur, augere. Aucto autem numero sociorum vel discipulorum, et summa tota dividenda et partium numerus in quas distribuetur illa justa proportione

proportione augebuntur. Proviso quod unius cujusque partis magnitudo nunquam partem centesimam decimam tertiam sex mille librarum excedet: quod resideat autem iterum seponetur ad augendum in posterum numerum sociorum vel discipulorum.

24.—*De causis propter quas Socii decedere a societatibus suis debent.*

Nulli socio licebit societatem suam una cum beneficio cujus collatio ad collegium pertinet ultra annum integrum postquam in quietam hujus beneficii possessionem venerit retinere, nisi quo tempore ad illud beneficium præsentatus sit venia ei concessa fuerit a magistro et majori parte omnium sociorum ut societatem suam una cum beneficio illo perpetuo teneat.

Si quis socius aut hæreditatis jure, aut testamenti aut doni alicujus virtute adeptus fuerit ullius generis proventus sive temporales sive ecclesiasticos per totam vitam duraturos quorum annuus valor conjunctim aut singulatim excedat annuum valorem quingentarum librarum post lapsum anni integri a tempore pacificæ assecutionis hujusmodi proventuum socius esse desinet.

In valore autem annuo proventuum sive temporalium sive ecclesiasticorum æstimando ipsius tantum pecuniæ rationem haberi volumus, quæ resideat postquam omnia vectigalia deducta fuerint quæ per necessitatem legis in usus vel publicos vel parochiales vel alios sint pendenda.

Si quis socius in magistrum vel socium alicujus collegii in universitate Cantabrigiensi electus et admissus fuerit, statim dicti nostri collegii sociūs esse desinet.

Omnes socii qui post hæc statuta confirmata in socios electi fuerint post decem annos a justo tempore progrediendi ad perfectum magisterii in artibus aut in jure gradum, aut ad doctoratum in medicina, si qui sint qui neque in artibus neque in jure baccalaureatum consecuti fuerint, socii esse desinent, nisi quibus per harum aliquam quæ sequuntur exceptionum societatem in dicto collegio diutius retinere liceat.

Primo, si quis socius officio aliquo quo commorari in academia teneatur aut in collegio aut in academia sub fine decem annorum prædictorum fungetur, licebit eidem etiam post decem annos prædictos societatem suam in dicto collegio tamdiu retinere quamdiu dicto officio, aut alio aliquo ejusmodi officio, fungetur, proviso tamen ne cui liceat societatem in dicto collegio una cum munere aliquo academico cujus annuus valor summam quingentarum librarum excedat retinere.

26. Secundo,

Secundo, si quis socius aut in collegio aut in academia officio aliquo quo commorari in academia teneatur vel uno vel pluribus ex ordine per spatium quindecim annorum functus fuerit, licebit eidem absque ulla commorandi in academia necessitate societatem suam in dicto collegio per omne vitæ suæ tempus retinere, nisi alia aliqua ratione per hæc statuta prohibeatur.

Tertio, si quis socius ante quinque annos ut supra dictum est numerandos in presbiterii ordinem assumptus fuerit, licebit eidem (nisi alia aliqua ratione per hæc statuta prohibeatur) etiam post prædictos decem annos exactos societatem suam in dicto collegio retinere, donec beneficium ei a collegio delatum fuerit cujus annuus valor (deductis vectigalibus omnibus quæ per necessitatem legis in usus aut publicos aut parochiales aut alios pendenda sint) trecentis ad minimum libris æstimetur.

Quarto, si cui socio propter insignem litterarum vel scientiæ studiis operam navatam magister et duæ partes omnium sociorum per scriptum manibus suis obsignatum specialem concesserint licentiam societatem suam in dicto collegio ultra decem annos prædictos exactos retinendi, licebit eidem cum consensu expresso visitatoris dicti collegii, et non aliter, societatem in dicto collegio retinere.

Nulli socio qui uxorem duxerit habitare intra claustra dicti collegii licebit.

25.—*De amotione Magistri.*

Statuimus et ordinamus quod si magister dicti collegii aperte ab Ecclesia unita Angliæ et Hiberniæ secesserit, res a Visitatore quam primum commode fieri poterit investigabitur, et si ita secessisse magistrum haud dubie constiterit, Visitator dictum magistrum confestim a magisterio dicti collegii penitus amovebit.

Si magister dicti collegii aut in ipsius cura et regimine adeo nequiter et dolose sit versatus, aut alias ad hujusmodi curam et regimen adeo indignus reddatur ut juxta sui demerita majori parti omnium sociorum a suo magisterio amovendus videatur, volumus ut per visitatorem, res tota cognoscatur. Habita autem cognitione, si dicti magistri demerita ita postulare videantur, volumus ut dictus visitator, summarie et de plano sine figura judicii dictum magistrum a magisterio ejus amoveat.

Si quando contigerit ut magister dicti collegii ad curam et regimen ejusdem inhabilis reddatur, liceat majori parti omnium

nium sociorum rem ad visitatorem per scriptum manibus suis obsignatum deferre. Facta autem inquisitione si visitator dicti magistri insufficientiam ita postulare judicaverit, ex hoc, conventu omnium sociorum per seniorem ex sociis supra dictis qui ad visitatorem rem detulerint convocato, eligatur aliquis qui vices magistri pro tempore sustineat. Qui ita electus fuerit ex dicti magistri emolumentis haud supra tertiam partem annuatim percipiat, atque omnibus in rebus plenariam magistri auctoritatem exerceat, proviso semper ne quid ab illo legitime actum habeatur quo magistri jura imminuantur. Quod si dictus socius aut per insufficientiam aut aliam quamlibet ob causam et ipse inhabilis fiat ad magistri locum tenendum, tum ad alium quendam ex sociis eligendum secundum præmissa procedatur. Sin aliquando visitatori videatur ipsum collegii magistrum ad curam et regimen ejusdem habilem esse factum, tum rursus in officium suum secundum dicti visitatoris sententiam restituatur.

26.—*De causis amotionis Sociorum, et de omnium delictis puniendis.*

Statuimus et ordinamus quod si quis socius dicti collegii aperte ab Ecclesia unita Angliæ et Hiberniæ secesserit, res a Visitatore quam primum commode fieri poterit investigabitur, et si ita secessisse dictum socium haud dubie constiterit, Visitator dictum socium confestim a societate quam habuit in dicto collegio penitus amovebit.

Si quis socius adeo nequiter, violenter, contumaciter, injuriose aut flagitiose in aliqua re se gesserit ut magistro vel duobus quibusvis dicti collegii sociis collegium dehonestare videatur, aut si quis contra hæc nostra statuta et ordinationes magistro vel duobus quibusvis sociis dicti collegii graviter deliquisse videatur, res ad conventum magistri atque omnium sociorum deferatur, illi autem rem totam diligenter cognoscant. Habita vero cognitione, statim dictus socius, prout magistro et majori parti sociorum æquum videatur, aut absolvatur, aut a societate sua atque omni commodo quod inde perceperat, pro gravitate delicti, vel ad tempus vel etiam, si res ita postulare videatur, penitus et in perpetuum amoveatur.

Licebit autem hujusmodi socio, si gravamen sibi in præmissis a magistro et sociis illatum existimaverit ad audientiam dicti visitatoris solummodo appellare. Qui quidem in hujusmodi appellationis causa summarie procedat; et si invenerit appellatum ex justa causa fuisse, gravamen a quo (ut prædicitur) fuerat appellatum non differat, prout justum fuerit,

reformare. Quod si invenerit male appellatum fuisse, ex hoc hujusmodi appellantem, secundum quod ipsi et ambobus assessoribus suis æquum videatur, insuper corripiat et puniat.

Quod si quisquam discipulorum, vel cæterorum collegii alumnorum qui in statu pupillari sint in aliqua re vel intra vel extra collegium gravius offenderit, aut nequiter se gesserit, volumus eundem juxta rationem criminis secundum sententiam magistri puniri, proviso tamen ne quis a collegio vel penitus vel ad tempus amoveatur sine consensu majoris partis sociorum in collegio commorantium. Nemini tamen qui in statu pupillari sit ullam appellandi licentiam concedimus præterquam discipulis, quibus tum demum si expulsi a collegio fuerint, appellandi visitatorem facultatem damus.

27.—*De celebranda memoria Fundatricis et Benefactorum.*

Die vicesimo Februarii vel, si ille dies dominicus fuerit, die vicesimo primo præstitutâ horâ totum collegium in sacellum conveniet et post quadragesimum quartum Ecclesiastici lectum aliquis a magistro assignatus concionabitur, ubi Fundatricis cæterorumque insignium virorum quorum in dicto collegio benefacta late pateant præclara commendatio erit, et quanta gloria Deus sit afficiendus demonstrabitur qui per hos Benefactores ingentia in nos beneficia contulerit; et societatem omnem hortabitur ut eisdem in Dei gloriam et eruditionis amplificationem secundum honestum Fundatorum institutum utantur, et Deum precentur ut ita viventium corda sua benignitatis gratia affundat ut ad Dei gloriam illustrandam et Christianam religionem adaugendam opes ac facultates suas similiter conferant. Post concionem peractam cantabunt aut recitabunt "Te Deum Laudamus," "Laudate Dominum de Cœlis," "Cantate Domino," "Laudate Dominum in Sanctis."

The Min. The memory of the righteous shall remain for evermore.

Resp. And shall not be afraid of any evil report.

Min. The Lord be with you.

Resp. And with thy spirit.

Let us pray.

O Lord, we glorify Thee in these Thy servants our benefactors departed out of this present life, beseeching Thee that as they for their time bestowed charitably for our comfort the temporal things which Thou didst give them, so we for our time may faithfully use the same, to the setting forth of Thy Holy

Holy Word to Thy laud and praise, and finally that both they and we may everlastingly reign with Thee in glory, through Jesus Christ our Lord. Amen.

Postea autem convivium ad celebrandam memoriam Fundatricis et Benefactorum sumptibus collegii habeatur.

28.—*De pecuniæ valori mutato subveniendo.*

Si quandoque propter mutatum pecuniæ valorem summæ expresse per hæc statuta definitæ vel nimis amplæ vel parum sufficientes magistro et majori parti omnium sociorum visæ fuerint, et propter eam nimietatem vel exiguitatem aut singulos multa dura atque incommoda aut magnum rem summam collegii detrimentum sustinere constiterit, licebit dicto magistro et sociis cum expresso visitatoris consensu per scriptum sigillo communi collegii obsignatum hujusmodi incommodis mederi jubendo prædictas pecuniæ summas, prout ipsis æquum videbitur, augeri vel minui: summæ autem ita auctæ vel diminutæ loco priorum substituentur, et oportebit iis uti perinde ac si ab initio in his statutis expressæ ac definitæ fuissent.

29.—*De Interpretatione Statutorum.*

Quum plurimarum per hæc statuta rerum arbitrium vel "magistro et sociis" vel "magistro et majori parti sociorum" vel "magistro et majori parti omnium sociorum" permittimus, veterem quidem et consuetam formam loquendi conservandam duximus, nolumus tamen hæc ita intelligi ut magistri consensus ad res istas gerendas necessario requiri existimetur. Etenim illud in omnibus valere volumus quod jam supra statuto decimo tertio posuimus, videlicet "quod in conventibus quibuslibet magistri et sociorum magister nullam vetandi potestatem, sed simplex tantum suffragium habeat; ubicunque autem vota magistri et sociorum in duas æquales partes divisa fuerint, sententia magistri prævaleat."

Si quid ambigui in his Statutis reperiatur, id judicio magistri et majoris partis omnium sociorum dirimatur. Si quid autem adeo dubium vel obscurum visum fuerit, ut per magistrum et socios dictæ Domus nequeat terminari, volumus ut per eosdem Cancellario Academiæ absque moræ dispendio plenarie referatur, ut ipse Cancellarius, cum et de consensu duorum assessorum, quos ei per dictam universitatem (ut supra præscribitur) adjungi volumus et assignari, aut unius

saltem eorum, hujusmodi dubium vel obscurum interpretetur prout dictis nostris statutis et ordinationibus maxime convenire censuerit.

Supplementary Provisions.

(1). As regards all persons who were elected Fellows of the College before the confirmation of these Statutes, the various foundations of the College shall remain unaltered, and the emoluments to be received by Fellows upon those foundations, the elections from one foundation to another, and the conditions under which such Fellowships shall be vacated, shall be the same and regulated in the same manner as if these new Statutes had never been made.

(2). If the present Master, or any of the said present Fellows, shall elect to be placed in all respects under the operation of the present Statutes, it shall be lawful for him to signify such election to the Master and Fellows by writing under his hand, and his rights in all respects shall be thenceforth governed by the present Statutes accordingly; and no Fellow shall by so doing forfeit his former rank and precedence in the order of Fellows.

(3). The emoluments of the present Master, and of the said present Fellows shall be paid out of the surplus divisible fund ascertained as directed by Stat. 23.

(4). As long as any payments are made under provision (3), the remainder of such surplus divisible fund, after making such payments, shall be divided between such of the Master and Fellows as are, or have placed themselves, in all respects under the operation of the new Statutes, and the Scholarship Fund, in the proportion of seventeen parts to such Master, five to each of such Fellows being a Senior Fellow, four to each of such Fellows being a Junior Fellow, and twenty to the Scholarship Fund.

Given under our common seal, this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPY

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS, on the 16th of May 1860, under the 19th & 20th Vict. c. 88, concerning the BYE FOUNDATIONS at CLARE COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Six that Eton," do hereby, in virtue of the powers given to us by the said Act, make the two following Statutes with respect to the several Fellowships and Scholarships at Clare College, in the University of Cambridge, enumerated therein, and also to the Scholarship founded by Mr. Metcalfe at the same College respectively.

1.—*General Statute concerning Bye Fellowships and Scholarships.*

[Objected to by the College, and cancelled accordingly.]

2.—*Mr. Metcalfe's Scholarship.*

From the date of the confirmation of this Statute there shall be no further election to the Scholarship founded by the Rev. Alexander Matcalfe at Clare College.

The funds of the said Scholarship shall be carried to the general funds of the College to be distributed in the manner directed by the Statutes of the College.

Given under our common seal, this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of Two Additional Statutes framed by the Cambridge University Commissioners, on the 16th of May 1860, under the 19th & 20th Vict. c. 88, for the future Regulation of the College of the Holy Trinity in the said University of Cambridge.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the two following additional Statutes for the future regulation of the College of the Holy Trinity, in the University of Cambridge.

I.—*Repeal of previously existing Statutes.*

From and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of the College of the Holy Trinity, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for the good Government "and Extension of the University of Cambridge, of the Col- "leges therein, and of the College of King Henry the Sixth "at Eton," shall be of any force or effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College elected before the date of an Order of Her Majesty in Council, bearing date the twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty, and of the three present Regius Professors of Divinity, Hebrew, and Greek respectively, in the same College.

And save and except so much of Chapter II. of the Statutes of the said College given in the seventh year of the reign of Her present Majesty as is in the words following; that is to say, "Is pro Magistro habeatur et acceptetur, Magis- "trique officio in omnibus fungatur, quem Nos aut Succes-

"sores

" sores nostri præficiendum, perque literas nostras patentes " magno sigillo nostro Angliæ aut Successorum nostrorum " sigillatas nominandum duxerimus. Quem quidem Magis- " trum sic nominatum et designatum præsentes Vice-Magister, " ejusve Vicarius, aut maxime senior Socius, reliquique Socii " assument et admittent in perpetuum Magistrum Collegii " Sanctæ et Individuæ Trinitatis Cantabrigiæ," which said excepted provision shall be and remain in force.

From and after the approbation of this Statute by Her Majesty in Council all the former Statutes of the College shall stand and be repealed, except and subject as aforesaid.

II.—*As to taking Holy Orders.*

Every Fellow of the College hereafter elected who has taken the degree of Master of Arts, or who, having graduated in Law or Medicine, has attained the full standing of Master of Arts, shall be in Priest's Orders at the expiration of seven years complete from the time of taking such degree, or attaining such standing, or shall cease to be a Fellow at the expiration of three months after the completion of such term, except in the cases hereafter mentioned; that is to say,

1st. Any Fellow who may be exempted from the obligation to take Holy Orders, in virtue of any of the Statutes marked XVIII A, XVIII B, XVIII C, XVIII D, and XVIII E, respectively made by the Commissioners appointed for the purposes of the Act 19 & 20 Vict. c. 88, shall continue to retain such exemption, notwithstanding anything contained in this present Statute.

2dly. Any Fellow who may be elected under the provisions of Statute XXII. of the Statutes of the College made by the said Commissioners, and confirmed by an Order of Her Majesty in Council, bearing date the twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty, shall be allowed to retain his Fellowship from any obligation to take Holy Orders.

Given under our common seal, this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of Two Additional Statutes framed by the Cambridge University Commissioners on the 16th of May 1860, under the 19th & 20th Vict. c. 88, for the future Regulation of the College of St. John the Evangelist, in the said University of Cambridge.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the two following additional Statutes for the future regulation of the College of St. John the Evangelist, in the University of Cambridge:

I.—*Repeal of previously existing Statutes.*

From and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of the College of St. John the Evangelist, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for "the good Government and Extension of the University of "Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," shall be of any force and effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College elected before the date of an order of Her Majesty in Council, bearing date the twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty.

And save and except so much of Chapter LI. of the Statutes of the said College given in the twelfth year of the reign of Her present Majesty, as relates to the powers and functions of the visitor thereof, which shall be and remain in force as heretofore.

From

From and after the approbation of this Statute by Her Majesty in Council all the former Statutes of the College shall stand and be repealed, except and subject as aforesaid.

II.—*As to taking Holy Orders.*

Every Fellow of the College hereafter elected who has taken the degree of Master of Arts, or who, having graduated in Law or Medicine, has attained the full standing of Master of Arts, shall be in Priest's Orders at the expiration of seven years complete, from the time of taking such degree, or attaining such standing, or shall cease to be a Fellow at the expiration of three months after the completion of such term, except in the cases hereinafter mentioned; that is to say,

1st. Any Fellow who may be exempted from the obligation to take Holy Orders, in virtue of any of the Statutes marked XXIV A, XXIV B, XXIV C, XXIV D, XXIV E, respectively made by the Commissioners appointed for the purposes of the Act 19 & 20 Vict. c. 88, and confirmed by an Order of Her Majesty in Council, bearing date the tenth day of May, in the year of our Lord One thousand eight hundred and sixty, shall continue to retain such exemption, notwithstanding anything contained in this present Statute.

2dly. Any Fellow who may be elected under the provisions of Statute XXX. of the Statutes of the College made by the said Commissioners, and confirmed by an Order of Her Majesty in Council, bearing date the twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty, shall be allowed to retain his Fellowship free from any obligation to take Holy Orders.

Given under our common seal, this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 16th of May 1860, under the 19th & 20th Vict. c. 88, concerning the DUCHESS of SOMERSET'S SCHOLARSHIPS at ST. JOHN'S COLLEGE, in the said University of Cambridge.

STATUTE CONCERNING THE DUCHESS OF SOMERSET'S SCHOLARSHIPS AT ST. JOHN'S COLLEGE.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for "the good Government and Extension of the University of "Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statute with respect to the Scholarships at the College of Saint John the Evangelist, in the University of Cambridge, founded by Sarah Duchess of Somerset, by her Will and under the provisions of a Deed made in pursuance thereof on the 12th March 1697.

In lieu of the Scholarships founded under or in pursuance of the provisions of the Will of the Duchess of Somerset, dated 17th May 1686, and of the Deed of 12th March 1697, there shall be established at St. John's College so many Exhibitions as the funds from time to time applicable under the provisions of the said Will and Deed, for the benefit of Scholars from the Schools of Marlborough, Hereford, and Manchester respectively (including both the funds derived from the manorial property at Wootton Rivers, and from the leasehold farm at the same place, mentioned in the said Will and Deed), shall suffice to maintain, at the rate of Fifty pounds per annum for each Exhibition.

Whenever there shall be any surplus of the funds so applicable (after payment of the Exhibitioners at the rate aforesaid), not amounting to the sum of Fifty pounds per annum, such surplus shall be divided in equal shares amongst the existing Exhibitioners.

The Exhibitions shall be tenable for three years from the day of election, and no longer.

In

In the election to such Exhibitions, Candidates from the Free Grammar Schools of Marlborough, Hereford, and Manchester respectively, shall be entitled to the same right of preference to which they would have been entitled under the provisions of the said Will and Deed, in the election to the Scholarships founded by the said Duchess of Somerset, by reason of their having been educated at any such School; but no Candidate shall be entitled to any preference in respect of his place of birth.

The Candidates for such Exhibitions shall be subject to such examination as the Master and Fellows of St. John's College shall think proper, in order to ascertain their fitness to become students of the College.

If on the occurrence of a vacancy of any Exhibition on this Foundation no duly qualified Candidate shall present himself from such one or more of the three Schools of Marlborough, Hereford, and Manchester as may be entitled under the provisions aforesaid to a preference in the election for that turn, or none such of sufficient merit to deserve, in the opinion of the Master and Fellows of St. John's College, to be elected to such Exhibition, the Exhibition then vacant shall be treated as open to general competition.

In the case of any Exhibition the election to which shall have been thrown open to general competition, the term of three years shall be computed from the day on which the election would have taken place if the Scholarship had been filled up from the School to whose turn the vacancy fell.

The Master of St. John's College shall give to the Head Masters or Head Master of the School or Schools (as the case may be), entitled as aforesaid, sufficient notice for enabling Candidates to be so sent.

Any person elected into one of such Exhibitions shall be eligible for any Scholarship, Sizarship, or other College emolument (not being a second Somerset Exhibition), and in the event of his being elected, his Exhibition shall be tenable with such Scholarship or other College emolument.

Every Exhibitioner shall be subject to such regulations as to residence, instruction, discipline, and attendance on Divine Worship as the Master and Seniors shall from time to time determine, and may be deprived of his Exhibition by the Master and Seniors for any misconduct which shall in their judgment merit deprivation, but with liberty to appeal against such deprivation to the Visitor of the College.

It shall be lawful for the Master and Seniors, with the consent of the said Visitor and of the governing bodies of the

Schools of Marlborough, Hereford, and Manchester, to regulate from time to time the number and value of the Exhibitions of the said Foundation belonging to the said Schools.

Given under our common seal, this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of SEVEN STATUTES, numbered One to Seven, framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS, on the 16th of May 1860, under the 19th & 20th Vict. c. 88, respecting the BYE FOUNDATIONS at CORPUS CHRISTI COLLEGE, in the University of Cambridge.

STATUTES as to BYE FOUNDATIONS at CORPUS CHRISTI COLLEGE.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provi- "sion for the good Government and Extension of the Uni- "versity of Cambridge, of the Colleges therein, and of the "College of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the seven Statutes next following with respect to the several Fellowships, Scholarships, and Exhibitions at Corpus Christi College, in the University of Cambridge, in the same Statutes more particularly described:

1.—*Archbishop Parker's Norwich Scholarships*, 1569.

FROM the date of the conformation of this Statute by Her Majesty in Council there shall be no further election to either of the two Fellowships founded by Archbishop Parker in 1569, nor to either of the two Scholarships founded by him at the same time, with preference to Scholars from Norwich, Wymondham, or Aylsham Schools.

The

The whole of the annuity now received by Corpus Christi College from the Corporation of Norwich for the maintenance of the Fellows and Scholars on the above Foundation shall (subject and without prejudice to existing interests therein) be henceforth appropriated to the maintenance of one Exhibitioner of Corpus Christi College.

In the election to such Exhibition Scholars from the Schools of Norwich, Wymondham, and Aylsham respectively shall enjoy the same right of preference to which they are now entitled in the election to Scholarships on the above Foundation.

The Candidates for such Exhibition shall be nominated from among the Scholars of Norwich, Wymondham, and Aylsham Schools, by the Mayor and Corporation of Norwich, in the same manner as the Scholars on the Foundation of Archbishop Parker have been heretofore nominated.

The Exhibitioner so elected shall enjoy such additional advantages (if any) in respect of rooms and commons as the Master and Fellows of Corpus Christi College shall from time to time determine.

The Candidates for such Exhibition shall be examined in such manner as the Master and Fellows of Corpus Christi College shall from time to time direct, in order to ascertain their fitness to become Students of the College.

In default of any duly qualified Candidate from any of the Schools of Norwich, Wymondham, or Aylsham, the Exhibition then vacant shall be treated as open to general competition.

The Exhibitioner shall be subject to such regulations as to residence, instruction, and discipline as the Master and Fellows shall from time to time determine, and may be deprived of, or suspended from, his Exhibition by the Master and Fellows for any misconduct which shall, in their judgment, merit such deprivation or suspension.

The Exhibition shall be tenable until the person holding it shall be of standing to take the degree of Bachelor of Arts, or, if the Master and Fellows of Corpus Christi College think fit, until he is of standing to take the degree of Master of Arts, but no longer.

No person shall be entitled to preference in the election to such Exhibition in respect of his place of Education, unless he shall have been educated at such place of education for two years at the least last preceding the election, or last preceding his matriculation in the University.

2.—*Canterbury Scholarships*, 1569.

From the date of the confirmation of this Statute by Her Majesty in Council there shall be no further election to any of the three Scholarships founded by Archbishop Parker in 1569, with preference to Scholars from Canterbury School, or in default thereof to Scholars from Westminster School.

In lieu thereof there shall be established at Corpus Christi College two Exhibitions, with the like preference to Scholars from Canterbury School, or in default thereof to Westminster School, as is now enjoyed by Scholars from those Schools in respect to the said Scholarships.

Each of the two Exhibitioners shall receive Thirty Pounds a year, and shall be entitled in addition to a set of rooms in the College.

The Candidates for such Exhibitions shall be nominated by the Dean and Chapter of Canterbury out of Scholars of Canterbury School, or in default thereof by the Dean and Chapter of Westminster out of Scholars of Westminster School, in the same manner as the Scholars on the above-mentioned Foundation are now nominated; but no preference shall be shown in such nomination or election to any Candidate in respect of his place of birth or parentage.

The Candidates for such Exhibitions shall be examined in such manner as the Master and Fellows of Corpus Christi College shall from time to time direct, in order to ascertain their fitness to become Students of the College.

In default of any duly qualified Candidate from Canterbury School, or in default thereof from Westminster School, the Exhibition then vacant shall be treated as open to general competition.

The Exhibitioners shall be subject to such regulations as to residence, instruction, and discipline as the Master and Fellows shall from time to time determine, and any of them may be deprived of, or suspended from, his Exhibition by the Master and Fellows for any misconduct which shall, in their judgment, merit such deprivation or suspension.

Each Exhibition shall be tenable until the person holding it shall be of standing to take the degree of Bachelor of Arts, or, if the Master and Fellows of Corpus Christi College think fit, until he is of standing to take the degree of Master of Arts, but no longer.

No person shall be entitled to preference in the election to such Exhibition in respect of his place of education, unless he shall

shall have been educated at such place of education for two years at the least last preceding the election, or last preceding his matriculation in the University.

3.—*Eastbridge Scholarships.*

From the date of the confirmation of this Statute by Her Majesty in Council there shall be no further election to either of the two Scholarships founded by Archbishop Parker in 1569, out of funds derived from Eastbridge Hospital, Canterbury, for Scholars from the Free School of Canterbury.

In lieu thereof there shall be established at Corpus Christi College one Exhibition of the annual value of 6 *l.* 13 *s.* 4 *d.*, with the same preference to Scholars from Canterbury School as is now enjoyed by Scholars on the above Foundation.

In the election to such Exhibition no Candidate shall be entitled to any preference in respect of his place of birth.

The Candidates for such exhibition shall be examined in such manner as the Master and Fellows of Corpus Christi College shall from time to time direct, in order to ascertain their fitness to become students of the College.

In default of any duly qualified Candidate from Canterbury School, the Exhibition then vacant shall be treated as open to general competition.

The Exhibitioner shall be subject to such regulations as to residence, instruction, and discipline as the Master and Fellows shall from time to time determine, and may be deprived of, or suspended from, his Exhibition by the Master and Fellows for any misconduct which shall, in their judgment, merit such deprivation or suspension.

The Exhibition shall be tenable until the person holding it shall be of standing to take the degree of Bachelor of Arts, or, if the Master and Fellows of Corpus Christi College think fit, until he is of standing to take the degree of Master of Arts, but no longer.

The Exhibition shall be tenable with either of the two Exhibitions constituted in lieu of the Canterbury Scholarships founded by Archbishop Parker in 1569.

No person shall be entitled to preference in the election to such Exhibition in respect of his having been educated at Canterbury School, unless he shall have been educated at such School for two years at the least last preceding the election, or last preceding his matriculation in the University.

4.—*Archbishop Parker's Norwich Scholars,* 1567 *and* 1574.

From the date of the confirmation of this Statute by Her Majesty in Council there shall be no further election to any of the three Scholarships founded by Archbishop Parker in 1567, with preference to Scholars from Norwich or Aylsham Schools, nor to the Scholarship founded by the said Archbishop Parker in 1574, with the like preference.

In lieu thereof there shall be established at Corpus Christi College one Exhibition of the annual value of Twenty-four Pounds, with the like preference to Scholars from Norwich or Aylsham Schools as is now enjoyed by them in respect to the Scholarships on the above foundation.

The Exhibitioner so elected shall enjoy such additional advantages (if any) in respect of rooms and commons as the Master and Fellows of Corpus Christi College shall from time to time determine.

No candidate shall be entitled to any preference in the election to such Exhibition in respect of his place of birth.

The Candidates for such Exhibition shall be examined in such manner as the Master and Fellows of Corpus Christi College shall from time to time direct, in order to ascertain their fitness to become Students of the College.

In default of any duly qualified Candidate from Norwich or Aylsham Schools, the Exhibition then vacant shall be treated as open to general competition.

The Exhibitioner shall be subject to such regulations as to residence, instruction, and discipline as the Master and Fellows shall from time to time determine, and may be deprived of, or suspended from, his Exhibition by the Master and Fellows for any misconduct which shall, in their judgment, merit such deprivation or suspension.

The Exhibition shall be tenable until the person holding it shall be of standing to take the degree of Bachelor of Arts, or, if the Master and Fellows of Corpus Christi College think fit, until he is of standing to take the degree of Master of Arts, but no longer.

No person shall be entitled to preference in the election to such Exhibition in respect of his place of education, unless he shall have been educated at such place of education for two years at the least last preceding the election, or last preceding his matriculation in the University.

5.—*Sir Nicholas Bacon's Scholarships.*

From the date of the confirmation of this Statute by Her Majesty in Council the six Scholarships at Corpus Christi College,

lege, founded by Sir Nicholas Bacon, shall (after the expiration of the interests of the present holders thereof) be reduced to one Scholarship.

The Scholar for the time being holding such Scholarship shall receive the whole of the annuity derived from the estates of Sir Nicholas Bacon, and shall be entitled in addition to a set of rooms in College, together with such other advantages (if any) as the Master and Fellows may determine.

Such Scholar shall bear the name of Sir Nicholas Bacon's Scholar; but the representative of Sir Nicholas Bacon shall not be entitled to nominate the said Scholar, nor shall a Scholar from Redgrave School be entitled to any preference in the election to such Scholarship; but the election to such Scholarship shall be made in the same manner as that to the eight Foundation Scholarships of the College; and the Scholar holding it shall be subject to the same rules as to tenure and residence, and also as to instruction and discipline, as the said Foundation Scholars.

6.—*Small Scholarships—Caston, Mere, &c.*

From the date of the confirmation of this Statute by Her Majesty in Council the funds derived from the several Foundations of John Parker, of Alice Caston, of John Mere, of John Borage, of Archbishop Sterne, and of Samuel Chapman respectively, which have been heretofore applied to the maintenance of Scholars at Corpus Christi College, in accordance with the terms of the several Benefactions, shall (after the expiration of the interests of the present holders thereof), be consolidated into one fund, to be applied and distributed in such manner as the Master and Fellows shall from time to time think fit for the encouragement and reward of deserving Students at the said College. And no person shall henceforth be entitled to claim a preference in the distribution of the proceeds of such funds in respect of his place of birth, or of his being of any particular name or kindred.

7.—*Sykes' Exhibitions.*

From the date of the confirmation of this Statute by Her Majesty in Council there shall be no further election to any of the four Exhibitions founded by Mr. Sykes in 1768 for Scholars educated at St. Paul's School.

In lieu thereof there shall be established at Corpus Christi College one Exhibition of the value of Thirty-six Pounds a year, for a Scholar from the said School.

No person shall be entitled to present himself as a Candidate for such Exhibition who has not been educated at St. Paul's School for the space of three years at least.

The Candidates for such Exhibition shall be examined in such manner as the Master and Fellows of Corpus Christi College shall from time to time direct, in order to ascertain their fitness to become Students of the College.

In default of any duly qualified Candidate from St. Paul's School, the Exhibition then vacant shall be treated as open to general competition.

The Exhibitioner shall be subject to such regulations as to residence, instruction, and discipline as the Master and Fellows shall from time to time determine, and may be deprived of, or suspended from, his Exhibition by the Master and Fellows for any misconduct which shall, in their judgment, merit such deprivation or suspension.

The Exhibition shall be tenable until the person holding it shall be of standing to take the degree of Bachelor of Arts, or, if the Master and Fellows of Corpus Christi College think fit, until he is of standing to take the degree of Master of Arts, but no longer.

Given under our common seal, this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

CAMBRIDGE UNIVERSITY.

COPIES of STATUTES, framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS (under the 19 & 20 Vict. c. 88), on the 27th of March, 19th of April, 16th of May, 13th of June, 17th and 31st of July, 1st and 4th of August, and 23d and 24th of October 1860, in relation to ETON COLLEGE; to the UNIVERSITY OF CAMBRIDGE; and to TRINITY, JESUS, CLARE, MAGDALENE, CORPUS CHRISTI, ST. JOHN'S, ST. PETER'S, EMMANUEL, KING'S, DOWNING, ST. CATHERINE'S, SIDNEY SUSSEX, PEMBROKE, QUEEN'S, CHRIST'S, and GONVILLE AND CAIUS COLLEGES, in the said UNIVERSITY OF CAMBRIDGE.

Privy Council Office,
12 February 1861.

EDMUND HARRISON.

(*Presented pursuant to Act of Parliament.*)

Ordered, by The House of Commons, *to be Printed,*
15 *February* 1861.

COPIES of Two Statutes framed by the Cambridge University Commissioners on the 24th of October 1860, under the 19 & 20 Vict., cap. 88, in Substitution of Two Statutes formerly made and objected to, and 16 Statutes framed on the 27th of April 1860, marked A, B 1 to 6, G 2 to 8, M 2 and 3, for the future Government and Regulation of the College of King Henry the Sixth, at Eton.

Eton College.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the Reign of Her Majesty Queen Victoria, intituled, "An Act to make further Pro- "vision for the good Government and Extension of the Uni- "versity of Cambridge, of the Colleges therein, and of the "College of King Henry the Sixth at Eton," do hereby make the following Statutes for the Regulation of the College of King Henry the Sixth at Eton:—

Whereas we, the said Commissioners, made a body of Statutes for the regulation of King's College, in the University of Cambridge, to which we affixed our Common Seal on the Nineteenth day of April, in the year of our Lord One thousand Eight hundred and Sixty:

And whereas, the Statutes marked G. 1, and H. respectively in the said body of Statutes have not taken effect, and we, the Commissioners, have made, in lieu and substitution for the said two Statutes, the two Statutes next following, that is to say:—

G. 1. Conditions of Eligibility of Fellows.

The Fellows shall be elected from among all members of the College who have taken the degree of Bachelor of Arts, Bachelor of Laws, or Bachelor of Medicine at the regular time, unless prevented by illness or other grave cause, and whose standing after such degree does not exceed three years.

Provided that if, on any occasion, there shall be no duly qualified

qualified Candidate for a vacant Fellowship whom the Examiners shall consider of sufficient merit for election, such vacant Fellowship, notwithstanding anything in these Statutes contained, shall be reserved till the next election of Fellows; and if upon such second occasion there shall be no Candidate so qualified whom the Examiners shall consider of sufficient merit for election, then it shall be lawful for the Provost and Fellows to throw open such vacant Fellowship for competition amongst all members of the University being otherwise duly qualified.

H. Of Scholarships.

There shall be forty-eight Scholarships in the College.

Twenty-four of these Scholarships shall be appropriated to the Scholars of the College of King Henry the Sixth at Eton, and shall be called "Eton Scholarships." The election to such Scholarships shall continue to be held at Eton. Only such a number of Candidates shall be elected upon each occasion as will fill the actual number of Scholarships then vacant.

If on any occasion there shall be no duly qualified Candidate for a vacant Eton Scholarship whom the Examiners shall consider of sufficient merit for election, such Scholarship shall be reserved till the next election of Eton Scholars; and if upon such second occasion there shall be no Candidate so qualified whom the Examiners shall consider of sufficient merit for election, then such Scholarship shall for that turn be thrown open to competition amongst all Boys then receiving education in Eton School, whether on the Foundation or not; and in default of any Candidate from the School whom the Examiners shall consider of sufficient merit to be elected, then such Scholarship shall for that turn be dealt with as if it had been an open Scholarship, as hereafter defined.

The remaining twenty-four Scholarships shall be called Open Scholarships, and shall be given according to merit, subject to the conditions below specified, namely:—

That twelve of such Scholarships be open to all Candidates, being British subjects, who, at the time of their examination, shall not have completed their twentieth year, and the other twelve to all Undergraduates of the College.

The examination for such Open Scholarships shall take place at Cambridge, at such time and in such manner as shall be fixed by the Provost and Fellows.

The Electors to the Open Scholarships shall be the Provost, the Vice-Provost, one of the Mathematical Lecturers, and two of the Fellows, to be appointed annually by the Educational Council.

No person shall vote at the election for any Scholarship who has not taken part in the examination for the same.

The emoluments of all the Scholarships shall be eighty pounds per annum each, with tuition free; and the Eton Scholars shall have, in addition, rooms and commons free during residence, or a money payment in lieu thereof; and the like advantages shall be extended to the other Scholars of the College so soon as the circumstances of the College will permit.

All Scholars shall proceed to their degree of Bachelor of Arts, or other Faculty, at their regular time, except for sickness or other grave cause, to be approved by the Provost and Fellows, or, in default of so doing, shall lose their Scholarship within three months.

All Scholars shall be allowed to hold their Scholarships till they have attained the standing of Master of Arts, or until they become Fellows of the College, or of any other College, but no longer.

Now we, the Commissioners aforesaid, by virtue of the powers vested in us by the aforesaid Act (19 & 20 Vict. c. 88), do ordain that the said two Statutes herein-above recited shall, so far as the College of King Henry the Sixth at Eton may be affected thereby, be deemed to be Statutes of such last-mentioned College, and shall have the same force and effect as the other Statutes of the same College, subject, nevertheless, to the following provision; that is to say, that the said College of King Henry the Sixth at Eton shall not be in any manner bound or affected by the said recited Statutes, or either of them, which, under the provisions of the said Act, may not become and be a Statute or Statutes of King's College in the University of Cambridge.

Given under our Common Seal, this Twenty-fourth day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College "of King Henry the Sixth at Eton," do hereby make the following Statutes for the regulation of the College of King Henry the Sixth at Eton.

Whereas we, the said Commissioners, have made a body of Statutes for the regulation of King's College in the University of Cambridge, and have affixed thereto our Common Seal; and whereas the said body of Statutes contains (among others) the eighteen Statutes next following: —

A.—The Constitution of the College.

1. The Foundation of the College shall consist of a Provost, at least forty-six Fellows, and at least forty-eight Scholars, and of the following Stipendiary Members, viz., two Chaplains, an Organist, twelve Lay Clerks, sixteen Choristers, and a Master over the Choristers.

B.—The Provost.

Statute 1.—Qualifications and Duties.

The Provost of the College shall be a member of the Church of England, not less than thirty years of age, and a Master of Arts, or of some superior degree in the University of Cambridge. The electors shall choose some person distinguished for his attainments in theology, literature, or science, who, in their judgments, is also best qualified by his piety, discretion, and knowledge of affairs to secure the good government of the College as a place of religion, learning, and education.

He shall exercise a general superintendence over the affairs of the College, shall preside *ex officio* at all meetings of the Fellows, and shall have the power, in all cases not provided for by the Statutes of the College, or by special order of a College meeting, to make such provision for the good government and discipline of the College as he shall think fit.

Statute 2.—Election.

The electors to the Provostship shall be all the Fellows of the College who are Masters of Arts, or of an equal or superior degree.

On the day succeeding that upon which the vacancy of the office of Provost, whether by deprivation, voluntary resignation, promotion, or death, is made known to him, the Vice-Provost, or in his absence the Senior Fellow in residence, shall call the other electors who are in College together, who shall then fix the day and hour for the election of a new Provost, such day to be not before the 15th nor later than the 30th from that on which they meet, and shall also cause notice thereof to be given, as far as may be practicable, to all the electors who are absent. On the day and at the hour thus fixed, the electors shall assemble in the College chapel, where the Vice-Provost, or in his absence the Senior Fellow present, and after him the other Fellows in their order, shall make the following declaration:—"I, "*M. N.*, do solemnly declare that I will choose as Provost "the person that shall be in my judgment best qualified, "according to the Statutes, to secure the good government "of this College as a place of religion, learning, and edu-"cation." After these declarations are made, the Vice-Provost and two Senior Fellows present, or in the absence of the Vice-Provost, the three Senior Fellows present, shall stand in scrutiny, and first write their own votes on separate papers, and afterwards receive the votes, similarly written, of all the other Fellows. If, upon examination, it appears that a majority of all the votes of the Fellows present are given for one person, the junior of the three scrutineers shall read the several votes, after which the Vice-Provost, or in his absence the Senior Fellow present, shall pronounce such person duly elected Provost of the College; but if at this first scrutiny there is no such majority of votes given for one person, the scrutineers shall within two days proceed to make a second scrutiny in the same manner as before, and the person, if any, who on this second scrutiny has the majority of votes of the electors present, shall be pronounced to be elected Provost; and if at this second scrutiny no such election shall be made, the Vice-Provost, or in his absence the Senior Fellow present, shall send notice to the Visitor, who thereupon shall appoint a person duly qualified according to these Statutes, and shall require the Vice-Provost, or in his absence

absence the Senior Fellow in residence, to admit him as hereinafter provided.

If the Provost elect shall accept the office, notice of the election shall forthwith be sent to the Visitor, under the Seal of the College, and the Visitor shall thereupon have power to admit him, having previously required him to make the following declaration: —

"I, *M. N.*, elected Provost of the College of the Blessed "Mary and St. Nicholas, commonly called King's College, in "the University of Cambridge, do solemnly profess and "declare that I will govern and administer the College, its "benefices, lands, tenements, and possessions, and all pro- "perty of the same, and maintain its rights, liberties, and privi- "leges, as far as in me lies, free from all detriment, loss, and "diminution; that I will observe all the Statutes of the "College and act in accordance with the same; that I will "govern all the Fellows, Scholars, and other members of the "College, according to the Statutes of the same, without fear "or favour or partiality in respect of any person whatsoever; "and will endeavour to the utmost of my power that all "other persons concerned in the government and adminis- "tration of the College shall conform to the Statutes of the "same; that in case I should resign or be removed by legi- "timate authority from the office of Provost, I will render "up all the goods, property, and possessions of the College "which have been in my charge and keeping, to the Vice- "Provost and other officers of the College."

If the Visitor fail to admit the Provost elect within five days after receiving notice of his election, or if the Provost be appointed by the Visitor by right of devolution, the Vice-Provost, or in his absence the Senior Fellow in residence, shall require the Provost so elected or appointed to make the aforesaid declaration in presence of the Fellows assembled in the College chapel, and shall then admit the Provost to his office.

If the Provost elect, being present, decline to accept the office, the Fellows shall proceed to another election at the same hour on the following day, unless such day be Sunday, and then on the day following; but if the Provost elect be absent, and refuse to accept the office, the Vice-Provost, or in his absence the Senior Fellow in College when the refusal is made known, shall call the electors together and appoint a day, after an interval of not more than seven days, for the election of a new Provost; and shall cause notice thereof to be given, as hereinbefore provided.

STATUTE 3.—Residence.

THE Provost shall be required to reside in the College during the whole of every Term, unless absent on College business, or prevented by sickness or other urgent cause, to be signified by him to the Vice-Provost.

If the Provost shall not (except for one of the reasons aforesaid), so reside, the Visitor, upon the representation of any one or more of the Fellows, and after due inquiry made thereupon, may admonish the Provost, if the complaint shall be established to his satisfaction; and if after three such admonitions a fourth complaint of such non-residence according to the provisions of these Statutes shall be made and established, the Visitor shall proceed to deprive the Provost of his office, and by his mandate directed to the Vice-Provost require him to proceed, as in the case of a vacancy by death or other cause, to the election of a new Provost.

STATUTE. 4.—Provision in case of Incapacity of the Provost.

IF the Provost shall at any time become permanently incapable of performing the duties of his office, the Visitor, on being satisfied thereof, shall, upon the application of the majority of the Fellows qualified to take part in the government of the College, present at a meeting convened for the purpose of taking the matter into consideration, or upon the application of the Provost himself, have power to appoint one of the Fellows qualified as aforesaid, to act in the Provost's place during such his incapacity, and to assign to the person so appointed such portion as he shall think fit, not exceeding one-third, of the Provost's emoluments.

It shall be incumbent upon the Vice-Provost, or in his absence, upon the Senior Fellow in residence, to convene the meeting of the Fellows for the purpose in the foregoing paragraph mentioned, upon the request of any three or more of the Fellows qualified as aforesaid, and notice of such meeting shall be sent to each of the said Fellows.

The Fellow who shall be appointed by the Visitor to act in the Provost's place shall be called "Pro-Provost." He shall retain his office, and receive the portion of the Provost's salary which shall have been assigned to him, until the Provost shall be reinstated in his office, or shall cease to be Provost; and so long as he shall continue in office he shall exercise and perform all the functions and duties, and have all the powers and authorities of the Provost (except the power of consenting to any

any commutation of the Provost's emoluments), and shall be bound to residence in the same manner, and be liable to deprivation for the same causes and in like manner, as the Provost.

If the Pro-Provost shall die, or resign his office, or vacate, or be deprived of his Fellowship, or become permanently incapable of discharging his duties, the Visitor shall have the like power, upon the like application, of appointing another of the Fellows to be Pro-Provost in his room, and of assigning a salary to such Pro-Provost.

If the Provost shall at any time after the appointment of a Pro-Provost again become capable of performing his duties, the Visitor on being satisfied thereof shall have power to reinstate him in his powers and functions, and in receipt of his whole emoluments.

Statute 5.—Power of Removal of the Provost.

If the Provost shall openly secede from the Church of England, the Visitor shall, with all convenient speed, proceed to inquire into the fact, and if it be established, to deprive the Provost of his office.

If the Provost shall have been convicted by a Court of competent jurisdiction of any crime, of whatsoever nature or description, the Visitor may, if he shall think fit, proceed to inquire into the fact of such conviction, and if it be established, may deprive the Provost of his office.

If any three or more of the Fellows resident in College, and qualified to take part in the Government of the College, shall prefer to the Visitor a charge against the Provost, either of disgraceful conduct, or of malversation in his office, or of grave neglect of his duty, whereby he has become unfit to preside over the College, the Visitor shall, with all convenient speed, proceed to inquire into the facts of the case, and if the charge be established, may deprive the Provost of his office.

Statute 6.—Power of commuting the Provost's Emoluments for a fixed Stipend.

The Provost and Fellows in a General Congregation may, at any time hereafter, if they shall think fit, commute the emoluments of the Provostship, wholly or partially, for a stipend or annual sum of money, payable in any other manner out of the revenues of the College, or for a certain proportion of the said revenues; and may fix the time at which such

commutation shall take effect; and may also from time to time regulate, increase, or diminish the Provost's emoluments, whether commuted or uncommuted, as they shall think proper: Provided always, that no exercise of this power shall affect the person then Provost without his consent: Provided also, that it shall be lawful for the Provost or any Fellow to appeal to the Visitor against such commutation, regulation, increase, or diminution of the Provost's income, and that no such commutation, regulation, increase, or diminution shall take effect until it has been submitted to the Visitor and approved by him.

G.—Fellowships.

Statute 1.—Conditions of Eligibility.

[Objected to by the College, and cancelled accordingly.]

Statute 2.—Election of Fellows.

All vacancies occurring in the Fellowships of the College shall be filled up at a period not later than the next succeeding annual election of Fellows. An annual election shall take place on the second Saturday of the Easter Term, or on such other day as the Provost and Fellows shall appoint.

The intellectual qualifications of the candidates, and their proficiency in any branch or branches of the University studies, shall be ascertained in such mode as the Provost and Fellows shall determine, and the electors shall choose in each case that candidate (being otherwise duly qualified) whom they shall think to be the most fit to be a Fellow of the College as a place of religion, learning, and education.

The election of the Fellows shall be vested in the Provost (or in his absence the Vice-Provost), and such of the Fellows as may have been appointed by the Educational Council to take part in ascertaining the qualifications and proficiency of the candidates; provided that the number of such electors be (including the Provost) not less than nine.

No person shall vote at such election who has not taken part in ascertaining such qualifications and proficiency.

The Provost shall be always present at the election and take part in ascertaining the qualifications and proficiency of the candidates, unless prevented by urgent cause.

Before

Before proceeding to make their election, the electors shall severally make the following declaration :—

> " I do solemnly declare, that I will vote for that person " who is, in my judgment, the most fit to be a Fellow of " the College, as a place of religion, learning, and edu- " cation."

The election shall be decided by the majority of votes. In case of equality of votes the Provost, or in his absence the Vice-Provost, shall have a casting vote, in addition to his vote as one of the electors.

Within three days next following the election, the Provost and Fellows shall meet in the College Chapel, and shall call upon the several Fellows elect to make the following declaration :—

> " I, *M. N.*, elected a Fellow of this College, do declare " that I am *bonâ fide* a member of the Church of England, " and I do solemnly profess and declare, That I will ob- " serve all the Statutes, Rules, and Regulations of the " College ; that I will be faithful to the same, and do " nothing that may be detrimental to it ; but to the " utmost of my power will maintain and support the " interests of the same ; that I will obey the Provost and " all other officers of the College in all lawful com- " mands and directions ; and that if I should hereafter " be expelled or removed from my Fellowship in accord- " ance with the Statutes of the College, I will not bring " any suit or action either against the Provost or against " any other member of the College on account of such " expulsion, and will not appeal against the same except " to the Visitor of the College in the manner prescribed " by the Statutes."

After this declaration the Fellow elect shall be admitted to the Fellowship by the Provost, or in his absence by the Vice-Provost, and shall enter upon the emoluments of the same ; but he shall not be allowed to take any part in the government of the College until he has taken the degree of Master of Arts, or an equal or superior degree.

If any person elected a Fellow shall be prevented by illness or other grave cause from presenting himself for admission at the same time with the other Fellows elect, it shall be lawful for the Provost and Fellows to admit him at some later time, on his making the same declaration as above.

Statute 3.—Removal of Fellows.

If any Fellow shall openly secede from the Church of England as by law established, the Provost shall, with all convenient speed, assemble a meeting of the Provost, Vice-Provost, Deans, and five other Fellows, to be appointed annually at the election of officers, and the meeting so assembled shall proceed to inquire into the case, and if it be established, to declare his Fellowship vacant.

If any Fellow shall be convicted by a Court of competent jurisdiction of any crime, of whatsoever nature or description, the Provost shall, with all convenient speed, assemble a meeting, constituted as above, who may, if they think fit, proceed to inquire into the case, and if the fact of such conviction be established, the Provost, with the concurrence of a majority of the others so assembled, may expel such Fellow from the College.

If any two Fellows of the College shall prefer before the Provost against any Fellow a charge of disgraceful conduct, rendering him unfit to be a Fellow of the College, the Provost shall, with all convenient speed, assemble a meeting, constituted as above, who shall proceed to inquire into the case, and if the charge be proved, the Provost may, with the concurrence of a majority of the others so assembled, expel the Fellow so offending from the College.

Provided, that if in any of the above cases, either an accusing or accused party be Vice-Provost, Dean, or one of the five Fellows so appointed, his place at the meeting shall be left vacant.

Provided also, that in every case a Fellow removed under any of the provisions of this Statute may exercise his right of appeal to the Visitor.

Statute 4.—Of proceeding to Degrees.

Fellows who are Bachelors of Arts, or Bachelors of Law, shall proceed to the degree of Master of Arts or Master of Laws as soon as they are of standing to take such degree; and Fellows who are Bachelors of Medicine shall proceed to the degree of Doctor of Medicine as soon as they are of standing to take such degree.

Fellows not so proceeding to their degrees in due course (unless prevented by illness or other grave cause, to be approved by the Provost and Fellows), shall forfeit their Fellowships.

All

All Fellows shall preserve their seniority in the order of Fellows, according to priority of admission as Fellows, and not according to their degrees.

No Fellow shall be required to proceed to the degree of Bachelor or Doctor of Divinity, or of Doctor of Laws.

Statute 5.—Vacation of Fellowships.

Every Fellow who marries shall vacate his Fellowship at the expiration of one year from the date of his marriage.

Any Fellow who shall come into the possession of any ecclesiastical preferment on the presentation of the College, of any value whatsoever, or of any ecclesiastical preferment not in the patronage of the College of the annual value of not less than 300*l.* (after deducting rates, taxes, and all other legal charges), or who shall become Master, Fellow, or Member on the Foundation of another College, shall thereby vacate his Fellowship, except in the case of a living which, being in the patronage of the College, and under the clear annual value of 300*l.*, has first been offered in order to every Fellow of the College who is in Holy Orders, with the condition of vacating his Fellowship, and has been declined by all: Provided, that any Fellow coming into the possession of any ecclesiastical preferment shall be allowed to retain his Fellowship for one year after coming into such possession.

No Fellow shall vacate his Fellowship by reason of not entering into Holy Orders.

Statute 6.—Honorary Fellows.

It shall be lawful for the Provost and Fellows, at a general congregation, by a vote of not less than two-thirds of their number, to elect any person distinguished for his literary or scientific merits, or who having been a Fellow of the College shall have vacated his Fellowship, whether by marriage or otherwise, to an Honorary Fellowship. Such Honorary Fellow shall possess no voice or authority in the College, nor be entitled to any dividend; but he may enjoy such privileges with respect to commons, the occupation of rooms, or other advantages as the Provost and Fellows, at a general congregation, may from time to time determine: Provided that, if married, he shall not be allowed to reside in College.

Statute 7.—Power of choosing Professors and Eminent Men as Supernumerary Fellows.

It shall be lawful for the Provost and Fellows, at a general congregation, by a vote of not less than two-thirds of the

number present, to elect and admit to a Supernumerary Fellowship in the College any of the following persons:—

First. Any Professor or Public Lecturer of the University not holding any ecclesiastical preferment out of the precincts of the University, and not being Master or Fellow of any other College, whether he be married or not. Such Professor or Public Lecturer shall be allowed to retain such Fellowship so long as he shall continue to hold a Professorship or Public Lectureship in the University, and no longer. He shall not vacate his Fellowship by marriage, but, if married, shall not be entitled to rooms in College. He shall vacate his Fellowship by accepting any ecclesiastical preferment out of the precincts of the University.

Secondly. Any person eminent for science or learning (whether or not he may be a member of the College or of the University), not being married, and not holding any ecclesiastical preferment out of the precincts of the University, and not being Master or Fellow of another College. Every person so elected shall vacate his Fellowship by marriage, or by accepting any ecclesiastical preferment not within the precincts of the University.

No person elected under either of the above provisions shall be entitled to claim in right of his Fellowship the presentation to a College living.

Statute 8.—Preservation or Rights of existing Fellows.

The emoluments, tenure of office, and other interests of a pecuniary nature, of the present Provost, and of all Fellows elected before the confirmation of these Statutes by Her Majesty in Council, shall be in no respect affected by the present Statutes: Provided, that if the Provost or any such Fellow shall elect to be placed in these respects under the operation of the present Statutes, it shall be lawful for him to signify such election to the Provost and Fellows by writing under his hand, and his rights in such respects shall be thenceforth governed by the present Statutes accordingly.

H.—Scholarships.

[Objected to by the College, and cancelled accordingly.]

M.—Financial

M.—Financial Arrangements and Emoluments.

Statute 2.—Distribution of Revenues.

From and after the expiration or sooner determination of the interests to be regulated by the previously existing Statutes, the income of the College, after payment of the ordinary expenses (including all commons allowed by these Statutes), and of such stipends and salaries to the officers and servants of the College as shall have been fixed by the Provost and Fellows, shall be paid, applied, and distributed as follows, that is to say:—

To the Provost, his customary quarterly payments, and allowances for the expenses of his establishment, or such annual sum in lieu thereof as may be fixed by the Provost and Fellows in conformity with the Statute provided in that behalf.

To each of the Scholars of the College, such payments as are provided by the Statute relating to Scholars.

And subject to these payments, and to such payment (if any) as may become due to the University chest, to be applied to purposes for the benefit of the University at large, and to such other payments as in the judgment of the Provost and Fellows may be required for the purposes of the College, and the management and improvement of its estates and property, there shall be paid—

To every Fellow, such sum as the Provost and Fellows shall fix for the dividend of the year.

To the Provost, a sum equal to four and a half times the amount of such dividend.

Provided that if any person shall have been Provost, Fellow, Scholar, or Officer of the College for a part only of the year, he shall be entitled to one-fourth part only of his annual stipend, dividend, or allowance for each quarter of a year, or part of a quarter greater than a half, during which he may have been Provost, Fellow, Scholar, or Officer.

In addition to their dividends, the Fellows (if in residence), shall be entitled to rooms and commons.

When and so soon as the interests to be regulated by the previously existing Statutes shall have expired, or otherwise determined to such an extent as may, in the judgment of the Provost and Fellows, enable the distribution hereinbefore prescribed to be partially carried into effect without prejudice to such of those interests as may not have expired or otherwise

determined, the Provost and Fellows at a General Congregation shall from time to time, as circumstances will permit bring into operation so much and such part or parts of the prescribed distribution as they may deem most expedient: Provided that the number of twenty-four Eton Scholarships shall be completed before any Open Scholarships are established.

STATUTE 3.—Provision for increasing the Number of Fellowships and Scholarships.

IF it shall at any time appear to the Provost and Fellows that the revenues of the College produce a surplus beyond the amount required to afford to each Fellow an average income of 300*l.* a year (exclusive of rooms and commons, but inclusive of all other allowances), they may determine at a General Congregation either that the number of Fellowships shall be increased (permanently or temporarily), or that such part as may be thought fit of such revenues shall be set apart and applied either in increasing the number or emoluments of the Scholarships within the College, or for such other College purposes as may be considered most advantageous to the College as a place of education, religion, and learning.

Provided that whenever the whole number of Forty-eight Scholarships, according to the intent of the first chapter of these Statutes, shall have been established, then in any subsequent augmentation of the number of Scholarships that may be made from time to time, due regard be had to any increase which may have been made in the number of Scholars in the College of King Henry the Sixth at Eton, but so that not more than one-half of the additional Scholarships established by any such augmentation shall be appropriated to the College of King Henry the Sixth at Eton.

Now we, the Commissioners aforesaid, by virtue of the powers vested in us by the aforesaid Act (19 & 20 Vict, c. 88.), do ordain that every one of the Statutes herein above recited shall, so far as the College of King Henry the Sixth at Eton may be affected thereby, be deemed to be a Statute of such last-mentioned College, and shall have the same force and effect as the other Statutes of the same College, subject, nevertheless, to the following provision: that is to say, that the said College of King Henry the Sixth at Eton shall not be in any manner bound or affected by such, if any, of the said recited Statutes as, under the provisions of the said Act, may

may not become and be Statutes of King's College in the University of Cambridge.

Given under our Common Seal this twenty-seventh day of April, in the year of our Lord One thousand eight hundred and sixty.

L.S.

COPIES of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 16th of May 1860, under the 19 & 20 Vict. c. 88, for the future Regulation of the CRAVEN, BATTIE, DAVIES, and PITT SCHOLARSHIPS in the said University.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled "An Act to make further provision "for the good government and extension of the University "of Cambridge, of the Colleges therein, and of the College "of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statute for the future regulation of the Craven Scholarships in the University of Cambridge, the Battie Scholarship, the Davies Scholarship, and the Pitt Scholarship, in the same University in common.

1. The University shall have power to alter and determine from time to time, by grace of the Senate, the regulations respecting the persons who are to examine the Candidates and elect the Scholars; and also the regulations respecting notice of the vacancy of any Scholarship, the academical standing of Candidates, the notice to be given by Candidates of their intention to present themselves for examination, the time, mode, and subjects of examination, and the time of election.

2. In the election to any Scholarship the electors shall not be required to take into consideration the pecuniary circumstances of the Candidates.

3. In the election to any Scholarship the electors shall not

be required to take into consideration the relation of the Candidates to the Founder in name or kindred.

4. Each Scholarship shall be tenable for seven years if the Scholar shall continue a member of the University, but no longer.

5. No Student shall hold more than one of the Scholarships governed by this Statute at the same time.

6. The University shall have power to regulate from time to time, by grace of the Senate, the conditions of residence of the Scholars; and if any Scholar fail to comply with such conditions, the electors shall be at liberty to declare his Scholarship vacant.

7. The University shall have power, by grace of the Senate, to augment out of any funds at their disposal the stipends of the Davies and Battie Scholarships respectively.

Given under our Common Seal this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d of October 1860, under the 19 & 20 Vict. c. 88, for the future regulation of SIR THOMAS ADAMS'S PROFESSORSHIP of ARABIC, and of certain other Professorships therein mentioned, in the said University of Cambridge.

STATUTES for CERTAIN PROFESSORSHIPS in the UNIVERSITY of CAMBRIDGE.

WE, the Commissioners appointed by an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for the good Government "and Extension of the University of Cambridge, of the "Colleges therein, and of the College of King Henry the "Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statutes for the future

future regulation of Sir Thomas Adams's Professorship of Arabic, the Knightbridge Professorship of Moral Theology, Casuistical Divinity, and Moral Philosophy, the Regius Professorship of Modern History, the Woodwardian Professorship of Geology, the Jacksonian Professorship of Natural Philosophy, the Regius Professorships of Civil Law and of Physic, and the Professorships of Chemistry, Anatomy, Botany, and Mineralogy in the said University.

I.—Statute for Sir Thomas Adams's Professorship of Arabic.

The following provisions, contained in the Royal Letters Patent, July 4, 18 Car. 2, are hereby repealed, viz.:—

1. That which requires the Professor to lecture once in every week during term time through the year.

2. That which prescribes the times when the Professor is to be prepared to give assistance to students in private.

3. Those which give power to the Vice-Chancellor to admonish the Professor for neglect of duty, and to the Vice-Chancellor and Heads of Colleges to deprive him of his Professorship for neglect of duty or misconduct.

4. That which gives a preference in the election of the Professor to Heads and Fellows of Colleges and Gremials.

5. Those which prescribe the time of election of the Professor after every vacancy and the time and mode of publication of the notice of the vacancy and election.

6. Those which require the electors to take an oath before the election, and the Professor elect to take an oath previous to admission.

7. Those which give power to the Vice-Chancellor and Heads of Colleges to deprive the Professor of his office in case of incompetency, and assign the stipend to be paid to him after deprivation.

8. That which prevents Sir Thomas Adams's Professor from holding any other Professorship, so far as to enable him to hold with his Professorship the Lord Almoner's Readership in Arabic, if duly appointed thereto.

The remaining provisions of the said Letters Patent, as far as they are consistent with the provisions of this Statute, are hereby re-enacted; and the following additional provisions are hereby enacted, viz.:—

1. The Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common shall be deemed to be a part of this Statute.

2. The University shall have power to determine from time to time, by grace of the Senate, the time for which the Professor is required to reside in the University in every year, such time not to exceed eighteen weeks.

3. This Statute shall come into force on the next vacancy of the Professorship, or at such earlier time as the Professor may declare in writing to the Vice-Chancellor his acceptance of the same.

II.—Statute for the Knightbridge Professorship of Moral Theology, Casuistical Divinity, and Moral Philosophy.

The following provisions contained in the Will of Dr. John Knightbridge, or in the decree of the Court of Chancery, July 18, 1682, are hereby repealed, viz.:—

1. That which requires the Professor to be a Doctor or Bachelor of Divinity, and of the age of forty years or upwards.

2. That which requires the Professor to give four Latin lectures in each term, and to deliver such lectures in writing to the Vice-Chancellor.

The remaining provisions of the said Will and of the said decree of the Court of Chancery, as far as they are consistent with the provisions of this Statute, are hereby re-enacted, and the following additional provisions are hereby enacted, viz.:—

1. The Professor shall be designated as the Knightbridge Professor of Moral Theology, Casuistical Divinity, and Moral Philosophy.

2. The Chancellor, Masters, and Scholars of the University of Cambridge shall henceforth have the management and administration of the estate and funds held in trust for the Professorship.

3. The Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common shall be deemed to be a part of this Statute.

4. The Regius Professor of Greek, the Regius Professor of Modern History, and the Public Orator shall be added to the Board of Electors named by Dr. Knightbridge.

5. The University shall have power to determine from time to time, by grace of the Senate, the time for which the Professor is required to reside in the University in every year, such time not to exceed eighteen weeks.

6. This Statute shall come into force on the next vacancy of the Professorship, or at such earlier time as the Professor may declare in writing to the Vice-Chancellor his acceptance of the same.

III.—Statute

III.—Statute for the Regius Professorship of Modern History.

1. The directions, affecting the Professorship, contained in the Royal Letters Patent, Sept. 28, 11 Geo. 1, and April 11, 1 Geo. 2, are hereby repealed, except so far as relates to the appointment of the Professor by the Crown.

2. It shall be the duty of the Professor to reside in the University within one mile and a half of Great St. Mary's Church eighteen weeks at least during term time in every year, six of such weeks being in the Michaelmas Term, and the remaining twelve being in the Lent and Easter Terms; and the Professor shall deliver to the Vice-Chancellor once in every year, before the end of the Easter Term, a statement in writing of the number of weeks in each of the three terms during which he has so resided.

3. The Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common shall be deemed to be a part of this Statute; and the Professor shall comply with all the provisions of the said Statute.

4. This Statute shall come into force on the next vacancy of the Professorship, or at such earlier time as the Professor may declare in writing to the Vice-Chancellor his acceptance of the same.

IV.—Statute for the Woodwardian Professorship of Geology.

The following provisions, contained in the Will of Dr. Woodward are hereby repealed, viz.:—

1. Those which prescribe the time of election of a Professor after each vacancy and the notice to be given.

2. That which requires the Professor to be a bachelor.

3. That which prohibits the Professor from holding any preferment that requires his attendance out of the University.

4. That which requires the Professor never to be absent from the University above the space of two months in the year.

5. Those which require four lectures to be read in every year on some of the subjects treated of in Dr. Woodward's works, and one at least of the said lectures to be published in print.

6. That which requires the Professor to reside in or near the room where the Fossils are kept, and to attend in the same and show them to all who desire to have a view of them.

The remaining provisions of the said Will, as far as they are consistent with the provisions of this Statute, are hereby re-enacted; and the following additional provisions are hereby enacted, viz. :—

1. In the election of the Professor from time to time the persons whose names are on the Electoral Roll of the University shall be electors instead of the whole Senate.

2. The Professor shall hold no such office or preferment, requiring his attendance out of the University, as shall interfere with the duties of his Professorship.

3. The University shall have power to determine from time to time, by grace of the Senate, the time for which the Professor is required to reside in the University in every year, such time not to exceed eighteen weeks.

4. The Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common shall be deemed to be a part of this Statute.

5. This Statute shall come into force on the next vacancy of the Professorship, or at such earlier time as the Professor may declare in writing to the Vice-Chancellor his acceptance of the same.

V.—Statute for the Jacksonian Professorship of Natural Philosophy.

The following provisions, contained in the Will and directions of Mr. Jackson, are hereby repealed:—

1. That which requires the Professor to produce in every year, before receiving his salary, a certificate signed by eight Scholars at least who have attended his lectures for twenty days.

2. That which empowers the Regent Masters of Arts only to elect the Professor.

3. That which gives a preference in the election of the Professor to the Members of Trinity College, and to the natives of certain specified counties.

4. Those which prescribe the time and place of election of the Professor, and the notice to be given of the vacancy and of the election

5. Those which prescribe the number and length of the lectures to be given in every year, and the number of lectures to be attended by the free pupils.

6. Those which require the Master, Fellows, and Scholars of Trinity College, or some of them, or the Bursar, to give public notice of the neglect or omission of the Professor to give

give lectures for the term of one whole year, and declare the Professorship to be vacant by reason of such neglect or omission.

7. That which gives power to the Provost of King's College, the Master of Trinity College, and the Master of St. John's College, or the majority of them, or to the Vice-Chancellor, or to the Bishop of Ely, to determine any doubt or dispute about the due reading of the lecture, or the proper subject of it.

8. That which requires the Professor to deliver, or cause to be delivered, in every year to the Vice-Chancellor two copies, fairly written, of one of the lectures read within the course exhibited that year.

The remaining provisions of the said Will and directions, as far as they are consistent with the provisions of this Statute, are hereby re-enacted; and the following additional provisions are hereby enacted, viz.:—

1. The Professor shall be chosen and appointed from time to time by the persons whose names are on the Electoral Roll of the University.

2. The University shall have power to determine from time to time, by grace of the Senate, the time for which the Professor is required to reside in the University, such time not to exceed eighteen weeks.

3 The Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common shall be deemed to be a part of this Statute.

4. This Statute shall come into force on the next vacancy of the Professorship, or at such earlier time as the Professor may declare in writing to the Vice-Chancellor his acceptance of the same.

VI.—Statute for the Regius Professorship of Civil Law.

1. The Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common shall govern the Regius Professorship of Civil Law; and the Professor shall comply with all the provisions of the said Statute.

2. The University shall have power to determine from time to time, by grace of the Senate, the time for which the Professor is required to reside in the University in every year, such time not to exceed eighteen weeks.

3. This Statute shall come into force on the next vacancy of the Professorship, or at such earlier time as the Professor

may declare in writing to the Vice-Chancellor his acceptance of the same.

VII.—Statute for the Regius Professorship of Physic.

1. The Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common shall govern the Regius Professorship of Physic; and the Professor shall comply with all the provisions of the said Statute.

2. The University shall have power to determine from time to time, by grace of the Senate, the time for which the Professor is required to reside in the University in every year, such time not to exceed eighteen weeks.

3. This Statute shall come into force on the next vacancy of the Professorship, or at such earlier time as the Professor may declare in writing to the Vice-Chancellor his acceptance of the same.

VIII.—Statute for the Professorship of Chemistry.

1. The Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common shall govern the Professorship of Chemistry; and the Professor shall comply with all the provisions of the said Statute.

2. The Professor shall be chosen and appointed from time to time by the persons whose names are on the Electoral Roll of the University.

3. The University shall have power to determine from time to time, by grace of the Senate, the time for which the Professor is required to reside in the University in every year, such time not to exceed eighteen weeks.

4. This Statute shall come into force on the next vacancy of the Professorship, or at such earlier time as the Professor may declare in writing to the Vice-Chancellor his acceptance of the same.

IX.—Statute for the Professorship of Anatomy.

1. The Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common shall govern the Professorship of Anatomy; and the Professor shall comply with all the provisions of the said Statute.

2. The Professor shall be chosen and appointed from time to time by the persons whose names are on the Electoral Roll of the University.

3. The

3. The University shall have power to determine from time to time, by grace of the Senate, the time for which the Professor is required to reside in the University in every year, such time not to exceed eighteen weeks.

4. This Statute shall come into force on the next vacancy of the Professorship, or at such earlier time as the Professor may declare in writing to the Vice-Chancellor his acceptance of the same.

X.—Statute for the Professorship of Botany.

1. The Professor heretofore called the King's Reader in Botany, shall be chosen and appointed from time to time by the persons whose names are on the Electoral Roll of the University.

2. The Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common shall govern the Professorship of Botany; and the Professor shall comply with all the provisions of the said Statute.

3. The University shall have power to determine from time to time, by grace of the Senate, the time for which the Professor is required to reside in the University in every year, such time not to exceed eighteen weeks.

4. This Statute shall come into force on the next vacancy of the Professorship, or at such earlier time as the Professor may declare in writing to the Vice-Chancellor his acceptance of the same.

XI.—Statute for the Professorship of Mineralogy.

1. The Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common shall govern the Professorship of Mineralogy; and the Professor shall comply with all the provisions of the said Statute.

2. The Professor shall be chosen and appointed from time to time by the persons whose names are on the Electoral Roll of the University.

3. The University shall have power to determine from time to time, by grace of the Senate, the time for which the Professor is required to reside in the University in every year, such time not to exceed eighteen weeks.

4. This Statute shall come into force on the next vacancy of the Professorship, or at such earlier time as the Professor may declare in writing to the Vice-Chancellor his acceptance of the same.

XII.—Statute for Sir Thomas Adams's Professorship of Arabic and certain other Professorships in common.

1. In case of a vacancy of the Professorship the Vice-Chancellor shall give public notice of the vacancy and of the day for electing a new Professor, by fixing a written or printed paper on the door of the Public Schools, as soon as the vacancy is made known to him, or on the first day of the following term, according as the vacancy occurs in term time or out of term time; and the day of election shall be not sooner than fourteen days, nor later than twenty-eight days, after the date of the notice.

2. It shall be the duty of the Professor to give lectures in every year, and to order as well the subject of such lectures, as the times and places of delivery, according to a scheme to be approved by the Board of Studies connected with his department, of which Board he shall be a member. And it shall be the duty of the said Board to provide that the subject of such lectures be determined with regard to the general object of his Professorship as indicated by the Statutes and Deeds of Foundation (so far as they are unrepealed) affecting the Professorship. The fees to be paid for lectures by Students shall be determined by grace of the Senate.

3. If by reason of sickness, necessary absence from the University, or other sufficient cause, the Professor desire to have a Deputy to discharge the duties of the Professorship, he shall be required to obtain the consent of the Vice-Chancellor and the six persons elected and acting in accordance with sect. 4, chap. 7, of the Statutes of the University, such consent to be given in writing, and to specify the time for which the Deputy is to be appointed; and such Deputy shall in every case be nominated by the Professor and approved by grace of the Senate, and shall receive such stipend as may be also approved by grace of the Senate, being not less than one-third nor more than two-thirds of the proportional part of the whole annual stipend of the Professor for the time for which the Deputy is appointed.

4. It shall be the duty of the Professor also to deliver to the Vice-Chancellor once in every year, before the end of the Easter Term, a statement in writing of the number of lectures given by him during the preceding year, and of the times of delivery, together with the number of weeks in each of the three terms during which he has resided within one mile and a half of Great St. Mary's church.

5. If

5. If it shall be proved to the satisfaction of the Vice-Chancellor and the six persons elected and acting as aforesaid that the Professor has been wilfully neglectful of his duties, or guilty of gross or habitual immorality, it shall be competent to the Vice-Chancellor and the said six persons to admonish the Professor, or to deprive him of his office, as the case may seem to them to require; and if the sentence of deprivation be thus passed upon him, the Professorship shall thereupon become *ipso facto* void; but in every case, whether of admonition or of deprivation, an appeal to the University shall be allowed in accordance with the provisions of chap. 8 of the Statutes of the University.

6. If it be certified to the Vice-Chancellor and the said six persons, that the Professor is become unable to discharge his duties by age, ill health, or other serious impediment; and if the Vice-Chancellor and said six persons shall deem the inability to be sufficiently proved, they shall have the power of requiring a Deputy to be appointed for any time not exceeding twelve calendar months, which appointment, if necessary, may be renewed from time to time; and the Deputy in every such case shall be nominated by the Professor, and approved by grace of the Senate, and shall receive such stipend as may be also approved by grace of the Senate, being not less than one-third nor more than two-thirds of the proportional part of the whole annual stipend of the Professor for the time for which the Deputy is appointed. If the Professor fail to nominate a Deputy within three months after being required to do so, or if the Senate do not approve the person nominated by him, the nomination shall be made by the Vice-Chancellor, subject to the like approval.

Given under our Common Seal this Twenty-third day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d of October 1860, under the 19 & 20 Vict. c. 88, concerning Mr. WORTS' ENDOWMENTS for TRAVELLING BACHELORS, in the said University of Cambridge.

STATUTE respecting MR. WORTS's ENDOWMENT for TRAVELLING BACHELORS.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled "An Act to make further Provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statute respecting the Endowment of Mr. William Worts for Bachelors of Arts:

The annual pensions charged by Mr. Worts upon his estate of 100*l.* a year each to two young Bachelors of Arts, to be sent into foreign countries and to continue there for the space of three years, shall cease to be so applied, and shall constitute a fund, from which the University may make grants from time to time, by grace of the Senate, at its discretion, for the promotion or encouragement of investigations in foreign countries respecting the religion, learning, laws, politics, customs, manners, and rarities, natural or artificial, of those countries, or for purposes of geographical discovery or of antiquarian or scientific research in foreign countries; the conditions as to publishing the result of such investigations to be determined in every case when any grant is made.

Given under our Common Seal this twenty-third day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPY

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d of October 1860, under the 19 & 20 Vict. c. 88, concerning the mode of proceeding to the DEGREE of MASTER in SURGERY in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled "An Act to make further Provision for "the good Government and Extension of the University of "Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statute concerning the mode of proceeding to the degree of Master in Surgery, in the University of Cambridge.

De studiosis Chirurgiæ.

Chirurgiæ studiosus, pariter ac studiosus medicinæ, commoretur in academia per præscriptam partem uniuscujusque novem terminorum, vel etiam plurium, si per ordinationes academiæ plures requirantur. Operam det tum illis studiis, quæ studiosis artium præscripta sint, tum præcipue chirurgiæ, et examina per ordinationes academiæ instituta subeat. Hæc postquam omnia perfecerit, et academiam certam fecerit se chirurgiæ studio operam dedisse per id temporis spatium quod per ordinationem academiæ in hanc rem præscriptum fuerit, admittatur a cancellario ad incipiendum in chirurgia.

Qui ita fuerit admissus, postea creetur magister chirurgiæ magnis comitiis admissionem insequentibus.

Magister chirurgiæ per tres annos post creationem eodem statu, iisdemque privilegiis, quibus baccalaureus artium, et postea eodem statu, iisdemque privilegiis, quibus magister artium, fruatur.

Given under our Common Seal this Twenty-third day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

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31. COPY

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d of October 1860, under the 19 & 20 Vict. c. 88, for the additional endowment of existing Professorships, and for the establishment of additional Professorships in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statute for the additional endowment of existing Professorships, and for the establishment of additional Professorships in the University of Cambridge.

1. The University shall have power to provide, by grace of the Senate, from time to time, out of any funds available for that purpose, an additional endowment for each of the following Professorships, viz.,—

The Regius Professorship of Civil Law.
The Regius Professorship of Medicine.
The Woodwardian Professorship of Geology.
The Professorship of Botany.
The Professorship of Anatomy.
The Professorship of Chemistry.
The Professorship of Moral Philosophy.
The Professorship of Mineralogy.
The Adams Professorship of Arabic.

2. The University shall have power, also, to establish, by grace of the Senate, new professorships in addition to the Professorships already established, and to make provision for the payment of the stipends of the Professors, out of any funds available for that purpose, and also for regulating the fees and other emoluments of the Professors: Provided, that in every case when it is proposed to establish any such new Professorship, the grace for establishing it be offered to the Senate not more than fourteen days before or after the division of term, and that public notice of such grace be given to the Senate in the term preceding that in which it is so offered: Provided

Provided also, than an endowment of not less than two hundred pounds a year be assigned for the maintenance of such new Professorship.

3. The appointment to every such new Professorship shall be made by vote of the members of the Senate on the Electoral Roll.

4. It shall be in the discretion of the Senate to determine in every case whether funds, available for the purpose, should be applied to the maintenance of one or more new Professorships, or to provide additional endowments for one or more of the above-named Professorships, and in the case of such additional endowments, which of the said nine Professorships, should be selected for the purpose.

5. In the case of the first appointment to any such Professorship, and after such first appointment in each case, whenever a vacancy shall occur of the same, the Vice-Chancellor shall give public notice of the vacancy, and of the day for electing a new Professor, by fixing a written or printed paper on the door of the Public Schools as soon as the vacancy is made known to him, or on the first day of the following term, according as the vacancy occurs in term time or out of term time; and the day of election shall be not sooner than fourteen days, nor later than twenty-eight days after the date of that notice.

6. It shall be the duty of the Professor to give lectures in every year, and to order as well the subject of such lectures as the times and places of delivery, according to a scheme to be approved from time to time by the Board of Studies connected with his particular department, of which Board the Professor shall be a member; and it shall be the duty of the said Board to provide that the subjects of the said lectures be determined with regard to the general objects of each particular Professorship. The fees to be paid for lectures by students shall be determined by grace of the Senate.

7. The University shall have power to determine from time to time, by grace of the Senate, the time for which the Professor shall be required to reside in the University in every year, such time not to exceed eighteen weeks.

8. If by reason of sickness, necessary absence from the University, or other sufficient cause, the Professor desire to have a Deputy to discharge the duties of the Professorship, he

 shall

shall be required to obtain the consent of the Vice-Chancellor, and the six persons elected and acting in accordance with Section 4, Chapter 7, of the Statutes of the University, such consent to be given in writing, and to specify the time for which the Deputy is to be appointed; and such Deputy shall in every case be nominated by the Professor and approved by grace of the Senate, and shall receive such stipend as may be also approved by grace of the Senate, being not less than one-third, nor more than two-thirds of the proportional part of the whole annual stipend of the Professor for the time for which the Deputy is appointed.

9. It shall be the duty of the Professor also to deliver to the Vice-Chancellor once in every year, before the end of the Easter Term, a statement in writing of the number of lectures given by him during the preceding year, and of the times of delivery, together with the number of weeks in each of the three terms during which he shall have resided in the University.

10. If it shall be proved to the satisfaction of the Vice-Chancellor and the six persons elected and acting as aforesaid that the Professor has been wilfully neglectful of his duties, or guilty of gross or habitual immorality, it shall be competent to the Vice-Chancellor and the said six persons to admonish the Professor, or to deprive him of his office, as the case may seem to them to require; and if the sentence of deprivation be thus passed upon him, the Professorship shall thereupon become ipso facto void; but in every case, whether of admonition or of deprivation, an appeal to the University shall be allowed in accordance with the provisions of Chapter 8, of the Statutes of the University.

11. If it be certified to the Vice-Chancellor and the said six persons, that the Professor is become unable to discharge his duties by age, ill health, or other serious impediment; and if the Vice-Chancellor and said six persons shall deem the inability to be sufficiently proved, they shall have the power of requiring a Deputy to be appointed for any time not exceeding twelve calendar months, which appointment, if necessary, may be renewed from time to time: and the Deputy in every such case shall be nominated by the Professor, and approved by grace of the Senate, and shall receive such stipend as may be also approved by grace of the Senate, being not less than one-third, nor more than two-thirds of the proportional part of the whole

whole annual stipend of the Professor for the time for which the deputy is appointed. If the Professor fail to nominate a deputy within three months after being required to do so, or if the Senate do not approve the person nominated by him, the nomination shall be made by the Vice-Chancellor, subject to the like approval.

Given under our Common Seal this Twenty-third day of October, in the year of Our Lord One thousand eight hundred and sixty.

L. S.

COPY of an ADDITIONAL STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 27th of March 1860, under the 19 & 20 Vict. c. 88, for the future Regulation of TRINITY COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled "An Act to make further Provision for the "good Government and Extension of the University of Cam-"bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future regulation of Trinity College, in the University of Cambridge:

STATUTE XXI.*

If any Fellow of the College shall pertinaciously offend against the discipline of the College, or shall wilfully violate or neglect to comply with any of the Statutes of the College for the time being, it shall be the duty of the Master and Seniors on proof of such misconduct to admonish such Fellow; and, if necessary, to repeat such admonition; and if, notwith-

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standing such repeated admonition, such Fellow shall contumaciously persist in such misconduct, it shall be competent for the Master and Seniors (other than the Fellow whose conduct is impugned, if a Senior) to suspend such Fellow from the enjoyment of his Fellowship for one year; and if he shall still continue contumacious, to deprive him altogether of his Fellowship. Provided that no such sentence of suspension or deprivation be passed without the concurrence of at least six members of the Board of Master and Seniors, and provided also that any such sentence of suspension or deprivation shall be liable to be reversed by the Visitor of the College on appeal being made to him, or to be varied by him, at his discretion.

Given under our Common Seal this Twenty-seventh day of March, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES and SUPPLEMENTAL STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 16th of May 1860, under the 19 & 20 Vict. c. 88, for the future Regulation and Government of JESUS COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled "An Act to make further Provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the several Statutes next following, for the future regulation and government of Jesus College, in the University of Cambridge, and for making further provision for maintaining and improving the discipline, studies,

studies, and good government of the said College, which several Statutes are numbered from Chapter I. to Chapter XXXV. in the copy hereunto annexed, that is to say:

Statuta Collegii Jesu.

Cap. I.

Statuimus, ordinamus, et volumus quod perpetuo in hoc Collegio sit unus Magister sive Custos, ætate maturus, consilio providus, et morum gravitate præditus, qui cæteris præsit in Collegio; ac sexdecim Socii, viri honesti, opinionis illæsæ, studiosi, devoti, et cælibes, ac literarum studio dediti; necnon quindecim Scholares, modo et forma inferius descriptis eligendi. Quod si posthac reditus et possessiones Collegii ita augeantur ut major numerus quam qui præscribitur infra idem Collegium commode sustentari possit, tunc numerus Sociorum vel Scholarium augeatur ad arbitrium Episcopi Eliensis pro tempore existentis.

Volumus insuper ut talis in hoc Collegio Sacerdotum ratio habeatur, ut ex integro numero Sociorum sex ad minus sint semper in Ordinem Presbyterorum vel Diaconorum inaugurati: Quod si, sex tantum ex integro numero Sociorum in Sacris Ordinibus constitutis, aliquis ex illis sex Sociis locum suum vacaverit, tunc Socius in ejus locum electus, si nondum sit Presbyter vel Diaconus, se Diaconum quam maturrime fieri curet, aut alioquin sit ipso facto non Socius; nisi cum eo, ex causa rationabili, per Episcopum Eliensem, pro tempore existentem, expresse dispensatum fuerit, vel nisi interea aliquis alius Sociorum in Ordinem Diaconorum fuerit admissus.

Cap. II.—De Ordinatione Magistri.

Item statuimus, ordinamus, et volumus quod quotiescunque vacaverit officium Magistri dicti Collegii per mortem, resignationem, cessionem, dimissionem, aut alio quovis modo, Episcopus Eliensis pro tempore existens (ad quem solum et in solidum, et non alium, Magistri præfectionem et ordinationem spectare volumus) de persona idonea, vita et moribus ac scientia præpollente, cujus vitæ integritas et morum honestas cæteris vivendi normam præbeat, in temporalibus vero provida et circumspecta, providebit; eundemque præfato nostro Collegio, infra quadraginta dies posteaquam eidem Episcopo de vacatione dicti Magistratus, sive officii Magistri, per Literas

Patentes Præsidentis et Sociorum dicti Collegii, Sigillo suo communi sigillatas, legitime constabit proxime et continue numerandos, præficiet et instituet in eodem; proviso semper quod dictus Magister sic præficiendus sive instituendus sit Doctor in Theologia vel Jure Civili, vel in Theologia Licentiatus, aut in Theologia Baccalaureus, seu Magister in Artibus qui ad minus septennium post gradum Magistratus compleverit; quem quidem sic præfectum et institutum, dictus Episcopus, una cum mandato ad inducendum in realem et corporalem possessionem dicti officii, ad Præsidentem prædictum et dicti Collegii Socios mittere teneatur: Qui vero Præsidens et Socii eundem sic institutum ac admissum, omnino absque ulla meritorum discussione aut contradictione quacunque, in realem et corporalem dicti Collegii possessionem inducere, ac eidem in honestis obedire tenebuntur; facta prius per eundem professione secundum formam inferius annotatam.

Cap. III.—Forma Professionis Magistri.

Ego N., in Magistratum hujus Collegii electus et institutus, ero obediens in omnibus licitis et honestis Reverendo in Christo Patri, Domino Domino N. miseratione divina Eliensi Episcopo, et successoribus suis rite intrantibus, omnesque Ordinationes et Statuta hujus Collegii, quatenus me concernunt aut concernere poterunt, fideliter servabo, et ab aliis dicti Collegii Sociis, Scholaribus, atque aliis Studentibus, quatenus eos concernunt, quantum in me est, observari faciam: omnia et singula dicti Collegii bona et negotia fideliter et ad dicti Collegii commodum et utilitatem, quantum potero, utiliter ac bene et fideliter administrabo, dispensabo, et procurabo, necnon ab aliis sic administrari, dispensari, et procurari faciam; et si quod residuum sive incrementum fuerit, ad dicti Collegii utilitatem conservabo, et faciam fideliter conservari; jura, libertates, privilegia, et possessiones quascunque ipsius Collegii manu tenebo pro posse et defendam, et sic manu teneri, et defendi faciam; secreta Collegii in damnum aut præjudicium ejusdem non revelabo quovismodo; bona dicti Collegii mobilia et immobilia quovismodo non alienabo, nec absque consensu dicti Episcopi Eliensis, pro tempore existentis, et majoris partis omnium Sociorum impignerabo vel hypothecabo; nec ea aut eorum aliquod sive aliqua alienare volenti, consensum vel assensum quovismodo directe vel indirecte præstabo; delinquentes quoscunque, personarum vel patriæ acceptatione, omnique amore, invidia, odio, et favore

(quantum

(quantum humana fragilitas sinet) postpositis et prætermissis, juxta Statutorum exigentiam, puniam et corrigam, ac sic puniri et corrigi faciam. Hæc omnia me observaturum polliceor et ita do fidem.

Cap. IV.—De Cura Magistri.

[Objected to by the College.]

Cap. V.—De Magistri si res exigat Amotione.

Item statuimus, ordinamus, et volumus quod si Magister Collegii ab Ecclesia Anglicana palam secesserit, tum Socii dicti Collegii rem omnem Episcopo Eliensi pro tempore existenti aperiant, qui locum prædicti Magistri vacare definiat ipso facto. Si porro (quod absit) Magister Collegii de inhonesta vitæ ratione aut aliquo notabili crimine coram Episcopo Eliensi pro tempore existente idoneis testibus convictus fuerit per eundem Episcopum Magistratu privetur.

Cap. VI.—De Vice Magistro.

[Objected to by the College.]

Cap. VII.—De Electione Sociorum et Forma ejusdem.

[Objected to by the College.]

Cap. VIII.—De iis qui in Socios eligendi sunt.

Item statuimus, ordinamus, et volumus quod uno loco Socii vel pluribus locis vacantibus, licebit Magistro vel, in ejus absentia, Præsidenti et Sociis in locum vel loca vacantia Socium vel Socios indifferenter desubditis regno Britannico, juxta et secundum Statutorum formam, nominare et eligere.

Cap. IX.—De Professione Sociorum.

Item statuimus, ordinamus, et volumus quod quilibet Socius sic (ut præfertur) electus, admissus, et institutus, antequam in realem possessionem loci sibi collati quovismodo inducatur, aut aliquod emolumentum de bonis Collegii prædicti quovis-

modo accipiat, in præsentia Magistri aut, eo absente, Præsidentis et majoris partis Sociorum ad hoc collegialiter congregatorum professionem faciat in forma sequenta; videlicet,

"Ego N., in verum et perpetuum Socium hujus Collegii "electus, admissus, et institutus, profiteor me fidem Ecclesiæ "Anglicanæ ex animo amplecti. Item polliceor quod omnia et "singula Statuta et Ordinationes hujus Collegii absque omni "cavillatione, aut mala vel sinistra interpretatione, quatenus "ipsa me concernunt, inviolabiliter tenebo et observabo, et, "quantum in me erit, ab aliis teneri et observari faciam; "alioquin pœnas in non observantes aut non parentes per "prædictas Ordinationes et Statuta inflictas et ordinatas, juxta "eorundem Statutorum tenorem infligendas, humiliter subibo; "Episcopo insuper Eliensi, pro tempore existenti, necnon "Magistro et hujus Collegii Præsidenti, Decano aliisque supe- "rioribus meis, in licitis et honestis, obedientiam et reverentiam "debitam impendam; monitionibus eorundem, Episcopi, Ma- "gistri, Præsidentis, et Decani, pro tempore existentium, decre- "tisque correctionibus et punitionibus quibuscunque eorundem, "juxta et secundum formam Statutorum humiliter parebo; "secreta Collegii in damnum sive præjudicium ejusdem non "revelabo ad extra quovismodo."

"Item quod fidelis ero ac diligens in quocunque officio ad "quod me in hoc Collegio deputari contigerit, ac officium illud "ad quod juxta formam Statutorum deputatus fuero, absque "contradictione admittam et pro posse meo fideliter et dili- "genter adimplebo; et quatenus bona hujus Collegii, ratione "dicti officii, administravero, de iisdem justum et fidelem "computum, juxta formam Statutorum, reddam et præstabo. "Hæc omnia me observaturum polliceor, et ita do fidem."

Cap. X.—De Scholaribus in Collegio exhibendis.

[Objected to by the College.]

Cap. XI.—De Admissione Commensalium sive Perhendinantium.

Item statuimus, ordinamus, et volumus quod licebit Magistro Collegii pro tempore existenti, et majori parti Sociorum, Commensales sive Perhendinantes bonorum morum, honestæ conversationis ac studere volentes ad Collegium admittere et Commensales facere; et quod licebit Magistro Collegii cameras vacantes, quas Socii habere non voluerint, sub pensionibus, prout

prout melius pro utilitate Collegii poterit, quibuslibet Commensalium locare: Quos omnes, pro ordine suo, ad reparationem utensilium Collegii Senescallo, pro tempore existenti, id quod secundum judicium Magistrui vel, eo absente, Præsidentis et Sociorum æquum sit, solvere volumus, præter et ultra communas et camerarum suarum Pensiones.

Proviso semper quod unusquisque sive Scholarium sive Studentium, cujuscunque fuerit ordinis, habeat Tutorem, virum discretum, arbitrio Magistri vel, in ejus absentia, Præsidentis assignandum; qui studiis, necnon moribus et gubernationi personæ præsit, et pro eodem, secundum formam Statutorum nostrorum, in omnibus respondeat.

Cap. XII.—De Officio Præsidentis et ejus Deputatione.

Item statuimus, ordinamus, et volumus quod quotiens Magistrum vel Custodem a Collegio in ejusdem Collegii negotiis vel aliter absentem fore contingeat, ante ejus recessum, Sociis in locum consuetum convocatis, cum consensu Decani et Senescalli, unum ex Sociis, quem morum gravitate et discretione magis idoneum putaverit, Præsidentem eligat, ordinet, et assignet, qui, in ejus absentia, secundum formam Statutorum, Collegio et cæteris Sociis præsit, et eosdem, secundum formam Statutorum prædictorum regat, et vicem Magistri sive Custodis in omnibus suppleat, et reparationibus aliisque negotiis diligenter intendat. Quod si casu a Magistro ante absentiam ejus nullus in Præsidentem fuerit, ut præmittitur, electus, tunc Senior Sociorum tum præsentium pro Præsidente habeatur et in Magistri absentia vicem ejus suppleat. Ac si contingat locum Magistri sive Custodis per mortem aut alio quovismodo vacare, Senior Socius tunc præsens, quamprimum ei de vacatione loci constiterit, cæteros Socios tunc præsentes, in locum consuetum convocare teneatur, ad Præsidentem pro tempore vacationis eligendum, et ille ex Sociorum numero in Præsidentem electus sit, in quem major pars consenserit, vel si Socii in duas æquales partes dividantur, ille cui Senior Sociorum tum præsentium suffragatus fuerit; qui, sic electus, vicem Magistri suppleat, et Collegium pro tempore vacationis hujusmodi, secundum formam Statutorum, regat et gubernet.

Cap. XIII.—De Electione Officiariorum.

Item, ut bona Collegii et profectus bonarum literarum eo melius et efficacius gerantur et crescant, quo plures in eam rem oculos diligenter intendant, statuimus, ordinamus, et

volumus quod durante termino Paschali, Magister, aut, in ejus absentia, Præsidens, ac Socii Collegii conveniant, et pro anno tunc futuro Officiarios, Senescallum videlicet, Decanum, et Lectorem publicum de Sociis ejusdem Collegii eligant, quem vel quos ad illa officia aptiores et idoneores esse judicaverint, super quo conscientias eligentium in vim professionis oneramus; et illi pro electis Officiariis habeantur, in quos Magister vel, in ejus absentia, Præsidens et major pars Sociorum expresse consenserint; qui sic electi, cessante causa legitima per Magistrum vel, in ejus absentia, Præsidentem et majorem partem Sociorum approbanda, officium sibi assignatum per annum integrum et non ulterius duraturum, absque contradictione aliqua suscipient et subibunt.

Volumus tamen quod nullus in uno officio per biennium stare compellatur invitus, sed bonis mediis, si hoc utile Collegio videbitur, quantum fieri possit, ad hoc inducatur.

Cap. XIV.—De Officio Senescalli.

Item statuimus, ordinamus, et volumus quod Senescallus sic electus et pro tempore existens habeat visum et provisionem super omnibus victualibus emendis, præparandis, et exponendis infra Collegium, cujus cura et sollicitudine bene et honeste ac de bonis cibariis omnibus in dicto Collegio serviatur; provideat insuper, pro focalibus coquinæ necessariis, piscibus salsis, sale, pane, et cervisia, ac cæteris omnibus ad communem utilitatem Collegii necessariis.

Cap. XV.—De Officio Decani.

Item statuimus, ordinamus, et volumus quod Decanus sic (ut præfertur) electus in omnibus, quæ ad Divinum Cultum et ad divinorum observantiam pertinent, in Collegio regimen, gubernationem, et ordinationem habeat; cui tam Socii quam cæteri parere et obtemperare in omnibus teneantur, prout decet, sub pœna arbitrio Magistri vel Præsidentis et ipsius Decani limitanda et imponenda; qui etiam circa custodiam librorum, Ecclesiæ vestimentorum, jocalium, ornamentorum, et aliarum rerum quarumcunque, quæ Divino Cultui ordinata et mancipata fuerint, exactissimam adhibeat diligentiam et diligenter invigilet, ut opportunis temporibus, juxta Festorum exigentiam, ad Dei laudem et decorem Ecclesiæ exhibeantur et deserviant, deinde reponantur; de quibus omnibus bonis, necnon de pecuniis quibuslibet quas sibi in solutionem a Senescallo vel alio quocunque acceperit computum reddat annis singulis fidelem.

Cap.

Cap. XVI.—De Officio Lectoris et de Tutoribus.

[Objected to by the College.]

Cap. XVII.— De Electione Bursarii.

Si quando Magister Collegii a recipiendi cura et colligendi reditus atque omnia alia emolumenta ad dictum Collegium spectantia vacare velit, statuimus, ordinamus, et volumus quod de Sociis dicti Collegii per Magistrum vel, in ejus absentia, Præsidentem et Socios, unus eligatur qui Bursarius vocetur.

Licebit etiam Sociis Collegii, annuente Episcopo Eliensi pro tempore existente, Bursarium eligere si prædictus Magister ægritudine, senio, vel mentis imbecillitate adeo confractus sit ut ad Collegii procurationem sufficere nequeat. Volumus insuper quod Bursario, propter alterutram causam ut præmittitur, electo de bonis Collegii justum stipendium assignetur.

Cap. XVIII.—De Officio Bursarii.

Item statuimus, ordinamus, et volumus quod Bursarii erit officium reditus, proficua, omniaque vectigalia qualitercunque ad Collegium pertinentia recipere et colligere, et receptos apud Argentarios, a Magistro et Sociis nominandos, reponere; reparationes etiam justo tempore fieri curare et rerum denique et possessionum quoad poterit curam gerere. Proviso tamen quod in receptis dispensandis prædictus Bursarius cum Magistro vel, in ejus absentia, Præsidente et Sociis deliberare et consulere teneatur ac fidelem computum annuatim reddere: proviso insuper ne quis hoc munere ultra annum integrum fungatur nisi rursus in idem eligatur.

Cap. XIX.—De Divinis Officiis.

Item statuimus, ordinamus, et volumus quod, singulis diebus festis et profestis, in Capella dicti Collegii cantentur vel dicantur Matutinæ et Vespertinæ preces juxta usum Ecclesiæ Anglicanæ.

Licebit Magistro et Sociis identidem Ordinationes de Cultu Dei rite celebrando facere, et statuere qui adesse celebrationi debeant, et quibus abesse permittatur; et Ordinationes mutare vel antiquare prout optimum illis visum fuerit.

Item statuimus quod (si adsit conveniens numerus Communicantium) Eucharistia semel, ad minimum, in quoque ter-

mino, necnon diebus Nativitatis, Paschæ, et Pentacostes celebretur.

Cap. XX.—De celebranda Memoria Benefactorum.

Item statuimus, ordinamus, et volumus quod die computi generalis, hora autem per Magistrum vel Præsidentem et Decanum assignanda, totum Collegium ad Sacellum conveniat, et post quadragesimum quartum caput Ecclesiastici lectum, Decanus pro tempore existens (vel quidam ab eo deputatus) concionabitur, ubi Fundatoris cæterorumque insignium virorum quorum in hoc Collegio benefacta late patent, præclara commendatio erit, et quanta gloria Deus afficiendus sit demonstrabitur qui per hos Benefactores ingentia in illos beneficia contulerit; et Socios, Scholares, Studentes, et cæteros Ministros hortabitur, ut eisdem ad Dei laudem et eruditionis amplificationem et honestum Fundatorum institutum utantur; et Deum precentur ut ita viventium corda Suæ benignitatis gratia affundat, ut ad Dei gloriam illustrandam et Christianam religionem adaugendam, opes et facultates suas similiter conferant. Post concionem peractam, cantabunt vel dicent Anglice Te Deum laudamus, Laudate Dominum de cœlis, Cantate, Laudate Dominum in sanctis, ad finem Psalmorum, Gloria Patri, etc.; et ante precationem dicent:

The memory of the righteous shall remain for evermore;
Resp. And shall not be afraid of any evil report.
The Lord be with you;
Resp. And with thy spirit.

Let us pray.

O Lord, we glorify Thee in these Thy servants, our Benefactors, departed out of this present life; beseeching Thee, that as they for their time bestowed charitably to our comfort the temporal things which thou didst give them, so we for our time, may fruitfully use the same to the setting forth of Thy Holy Word, to Thy laud and praise; and, finally, that both they and we may everlastingly reign with Thee in glory, through Jesus Christ our Lord. Amen.

Ratio autem sumptus, qui impendi debet conviviis, quo tempore celebratur memoria Benefactorum ad hunc modum instituetur; ad communas Sociorum et qui in eorum commeatu sunt, licebit sumptum, qui secundum arbitrium Magistri vel Præsidentis et Senescalli par sit, conferre; ad communas vero

vero Scholarium et qui in eorum commeatu sunt, sumptum æqualem duplo communarum Scholarium et Studentium tum in Academia præsentium; ad alia vero convivia, Benefactorum nomine instruenda, præterquam ista, Collegium nullos sumptus exhibebit.

Cap. XXI.—De Lectionibus infra Collegium legendis.

Item statuimus, ordinamus, et volumus quod, per majorem partem cujusque termini, diebus et horis arbitrio Magistri vel, in ejus absentia, Præsidentis assignandis, Lectiones per Tutores habeantur in Theologia, vel Metaphysica, vel Philosophia, vel Logica, vel in Disciplinis Mathematicis, vel in Literis Humanioribus; quibus Lectionibus omnes Collegii Studentes, cujuscunque fuerint ordinis, juxta decreta per Magistrum vel, in ejus absentia, Præsidentem et majorem partem Sociorum jam edita vel in futurum edenda, diligenter interesse volumus.

Cap. XXII.—De tempore assumendi Gradus in Universitate.

Item statuimus, ordinamus, et volumus quod Magister ac omnes et singuli Socii Collegii, in singulis facultatibus, gradum assumant juxta modum, formam, et numerum annorum per Statuta et Injunctiones Universitatis: proviso tamen quod nullus Sociorum ultra gradum Magistratus in Artibus ascendere teneatur invitus.

Cap. XXIII.—De Residentia Magistri et Sociorum.

[Objected to by the College.]

Cap. XXIV.—De pernoctantibus extra Collegium.

Item statuimus, ordinamus, et volumus quod nullus Sociorum, Studentium, Commensalium, sive Ministrorum Collegii prædicti, infra Universitatem Cantabrigiæ aut infra unum milliare, extra Collegium sine speciali licentia Magistri vel, in ejus absentia, Præsidentis quoquo modo pernoctet, aut sic pernoctare audeat vel præsumat, sub pœna arbitrio Magistri vel, eo absente, Præsidentis et majoris partis Sociorum infligenda.

Volumus insuper quod, hora per Magistrum vel, in ejus absentia, Præsidentem assignanda, Collegii portæ in vespere claudantur, et quod sic firmiter clausæ usque ad horam de

mane per eundem Magistrum vel, eo absente, Præsidentem assignandam maneant, nec ullo modo alicui vel in Collegium ingredi vel ex eodem egredi volenti aperiantur, nisi de licentia Magistri vel, eo absente, Præsidentis id fiat; hujus autem rei executionem Serviens dicti Collegii sustinebit, quem Janitorem vocari volumus.

Cap. XXV.—De Sociis corrigendis vel amovendis.

[Objected to by the College.]

Cap. XXVI.—De Disciplina Collegii.

Scholares atque alii omnes qui in statu pupillari sint ad debitam reverentiam et obedientiam erga Magistrum et cæteros Officiaros Collegii exhibendam teneantur; quiete et decore se gerant; Statuta omnia atque Ordinationes a Magistro et Sociis de tempore in tempus ad Collegium regendum faciendas observent. Si quis eorum Statuta vel Ordinationes prædictas observare neglexerit, aut culpam aliquam contra disciplinam Collegii et bonos mores in se admiserit, per Magistrum vel, in ejus absentia, Præsidentem vel ejus vicem gerentem aut Decanum eorum vice fungentem puniatur secundum arbitrium eorum. Proviso quod nemo a Collegio aut in tempus aut penitus amoveatur, neque Scholaris emolumentis suis privetur, nisi a Magistro et Sociis in hoc convocatis.

Cap. XXVII.—De Horis et Ordine in Refectionibus observandis.

Item statuimus, ordinamus, et volumus quod omnes et singuli Socii, Scholares, Commensales, ac cæteri Ministri, ad pulsationem campanæ ad hoc designatæ, horis in cæteris Universitatis Cantabrigiæ Collegiis observatis, ad singulas capiendas refectiones in aulam communem conveniant, et inibi simul prandium et cœnam faciant, et non alibi, nisi ex causa rationabili per Magistrum vel Præsidentem et Senescallum approbanda; et licebit Magistro, assumptis secum aliquibus Sociis commensalibus, propter honorem et utilitatem Collegii, cum extraneis vel ex alia causa rationabili, aliquotiens in parlura vel camera sua cœnam vel prandium facere, modo per ejus absentiam ab aula ordo congruus in refectionibus non subvertatur vel prætermittatur.

Ex Sociis vero nulli vel in parlura vel camera de bonis sive sumptibus Collegii prandere aut cœnam instituere debent, nisi sint

sint ad minus quatuor, et potestatem antea a Magistro vel Præsidente obtinuerint, et antea Senescallo significaverint, quod etiam rarissime fieri volumus et mandamus. Liceat tamen ex Senescalli concessione cuivis Sociorum graviter ægrotanti communas suas ad cameram suscipere.

Volumus insuper quod, ante receptionem cujuslibet refectionis in aula, stando agant gratias Deo.

Cap. XXVIII.—De absentibus a Mensa tempore Refectionis.

Item statuimus, ordinamus, et volumus quod Magister vel Socius, quem temporibus refectionis a mensa absentem fore contigerit, nihil de pane vel potu vel aliis victualibus Collegii percipiet, aut sibi reservari vindicabit, vel petet, nisi hoc fiat secundum modum et formam in Statuto, "De horis et ordine "in refectionibus observandis," superius limitatos.

Cap. XXIX.—De Thesaurario et Sigillo communi.

Item statuimus et ordinamus quod sit in Collegio Thesaurarium, cum clavi et sera semper seratum, in quo Evidentias et Munimenta omnia Collegii prædicti servari et fideliter custodiri volumus; itemque Cista cum tribus clavibus et tribus seris serata, in qua Sigillum commune Collegii prædicti servari et custodiri volumus; ita quod nec Evidentia nec Scriptura aliqua, in prædicto Thesaurario deposita, inde eximatur vel extrahatur, nisi cum justa auctoritate; nec Scriptura aliqua cum dicto Sigillo communi aliquando sigilletur nisi prius per Magistrum, Decanum, et Senescallum vel eorum Loca-tenentes diligenter examinata fuerit, et Magister et major pars Sociorum in sigillationem ejusdem expresse consenserint; et quotiens aliquam Scripturam cum prædicto Sigillo communi sic, ut præmittitur, sigillari contigerit, volumus veram copiam ejusdem de verbo in verbum in quodam libro inscribi et registrari; quarum quidem clavium prædictarum, una erit in custodia Magistri, secunda in custodia Decani, tertia in custodia Senescalli vel alterius Socii, quem per se aliquis de prædictis in sua absentia deputaverit: proviso semper quod duæ claves non remaneant in manibus unius. Volumus insuper quod nulla Scriptura ad Sigillum concedatur nisi convocatis ad id per Magistrum vel, eo absente, Præsidentem, ut solet, Sociis, tres ad minimum Sociorum fuerint in Capitulo præsentes.

Cap. XXX.—De Traditione et Arrendatione Terrarum.

Item statuimus, ordinamus, et volumus quod decimæ, Ecclesiasticæ, fructus, reditus, et proventus terrarum et tenementorum, domus, firmæ, et possessiones ad dictum Collegium qualitercunque pertinentes ad firmam minime dimittantur seu arrendentur (si valorem centum librarum firma excedat) nisi cum consensu Magistri et majoris partis omnium Sociorum. Liceat tamen Magistro et Majori parti omnium Sociorum per decretum propriis manibus subscriptum, vel traditionem et arrendationem terrarum vel aliud quodcunque negotium ad Collegium spectans, Magistro et majori parti Sociorum delegare.

Insuper, omnium quarumcunque concessionum, dismissionum, et arrendationum literas indentatas, conventiones partium continentes, plane et expresse fieri et, ut præfertur, registrari volumus; quarum indentarum unam partem cum cæteris evidentiis in Thesaurario deponi et fideliter custodiri volumus, altera vero parte earundem penes conductorem, ut convenit, remanente. Præterea volumus quod, quotiens occasio postulare videatur, Magister et major pars omnium Sociorum aliquem idoneum nominent et eligant, qui officium prædictas literas indentatas exscribendi, easdemque registrandi, durante Magistri vel, eo absente, Præsidentis et majoris partis omnium Sociorum beneplacito, sustinebit.

Cap. XXXI.—Quid et quantum Magister Socii et Scholares percipient de bonis Collegii.

[Objected to by the College.]

Cap. XXXII.—De Servientibus infra Collegium.

Item statuimus, ordinamus, et volumus quod sit penes Magistrum et majorem partem Sociorum omnes quoscunque in Collegio Servientes conducere et dimittere, curare et regere. Statuimus item quod hi omnes Servientes prædicti habeant de bonis Collegii stipendium arbitrio Magistri vel, in ejus absentia, Præsidentis, cum consensu Senescalli iis assignandum, secundum quod melius cum iis pro utilitate convenire poterunt. Si quis autem Sociorum aliquid habuerit in quo Servientem aliquem accuset, fiat de re illa per Magistrum et Socios investigatio; nec ullus Servientium illorum nisi cum beneplacito Magistri et majoris partis Sociorum in Collegio retineatur.

Cap.

Cap. XXXIII.—De Computo annuatim faciendo.

Item statuimus, ordinamus, et volumus quod omni anno, citra festum Purificationis, per Magistrum sive Custodem, Senescallum, Receptorem, et alios computare debentes, fiat computus omnium expensarum, solutionum, et receptionum, ac oneris quorumcunque Officiariorum dicti Collegii; quem computum audiet et determinabit discretus Auditor per majorem partem Magistri et Sociorum eligendus, qui recipiet mercedem pro labore suo juxta discretionem Magistri cum consensu Sociorum; et post hujusmodi auditum prædictus computus Episcopo Eliensi, pro tempore existenti, infra mensem, si postulaverit, præsentetur et exhibeatur, ut videat et intelligat an bona dicti Collegii debite et fideliter a Magistro et cæteris computantibus administrentur; et quos aliter fecisse deprehenderit vel ad restitutionem et satisfactionem eos compellat, vel si hoc facere recusaverint, ab ipso Collegio penitus removeat, et nihilominus ad restitutionem astringentur.

Cap. XXXIV.—De Dubiorum Interpretatione.

[Objected to by the College.]

Cap. XXXV.

Si aliquando, pro nummorum valoris, ut solet, mutationibus, pecuniarum summæ his Statutis assignatæ, vel posthac legitima auctoritate assignandæ, vel tenuiores vel ampliores, quam pro rei exigentia, Magistro et Sociis videantur, ita ut injuria vel incommodum sive Collegio ipsi, sive cuivis intra Collegium, exinde oriturum sit, liceat eis per scriptum Sigillo communi rite sigillandum, et a Visitatore Collegii approbandum, alias pecuniarum summas substituere, prout eorum judicio res exigere videatur.

Given under our Common Seal this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L.S.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled "An Act to make further Provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the three following supplemental Statutes for the future regulation of Jesus College, in the University of Cambridge:

Jesus College.

Supplemental Statutes.

I.—Payment for University purposes.

[Objected to by the College.]

II.—Preservation of Rights of the Existing Master and Fellows.

The emoluments, tenure of office, and other interests of a pecuniary nature of the present Master, and of all Fellows elected before the confirmation of these Statutes by Her Majesty in Council, shall be regulated by the previously existing Statutes: provided that if the Master or any such Fellow shall elect to be placed in these respects under the operation of the present Statutes, it shall be lawful for him to signify such election to the Master and Fellows by writing under his hand, and his rights in such respects shall be thenceforth governed by the present Statutes accordingly.

III.—As to bringing these Statutes into operation.

When and so soon as the interests to be regulated by the previously existing Statutes shall have expired or otherwise determined to such an extent as may in the judgment of the Master and Fellows enable the distribution hereinbefore described to be partially carried into effect without prejudice to such of those interests as may not have expired or otherwise determined, the Master and Fellows shall from time to time,

time, as circumstances will permit, bring into operation so much and such part or parts of the prescribed distribution as they shall deem most expedient.

Given under our common seal, this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 16th of May 1860, under the 19th & 20th Vict. c. 88, for the future Regulation of the several BYE-FOUNDATIONS at JESUS COLLEGE, in the said University of Cambridge.

STATUTES concerning BYE FOUNDATIONS at JESUS COLLEGE.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for "the good Government and Extension of the University of "Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the four Statutes next following with respect to the Ley Fellowships at Jesus College, in the said University, and to the several other Fellowships and Scholarships at the same College in the same Statutes more particularly described.

1.—Ley Fellowships.

From the date of the confirmation of this Statute there shall be no further election to any of the three Bye Fellowships at Jesus College founded in the year 1840, under the will of Mrs. Sarah Jones, and called "Ley Fellowships."

All the emoluments derived by the College from the funds left to the College by the said Mrs. Sarah Jones for the purpose of founding the said three Fellowships shall (subject and without prejudice to existing interests therein) be carried to the general funds of the College, to be applied towards the

maintenance of open Scholarships in the manner directed by the Statutes of the College.

Six of the Open Scholarships thus created shall bear the name of "Ley Scholarships," but shall be in all other respects on the same footing with the other Scholarships of the College.

2.—Mr. Marshall's and other Scholarships.

From the date of the confirmation of this Statute there shall be no further election to any of the several Scholarships at Jesus College hereinafter enumerated, that is to say,—

One Scholarship founded by Mr. William Marshall.
Two - ditto - ditto by Lady Price.
One - ditto - ditto by the Rev. John Sykes.
One - ditto - ditto by Dr. John Mawhood.

All the emoluments derived by the College from the Foundations of the said several Benefactors for the maintenance and support of the several Scholarships above enumerated (subject and without prejudice to existing interests therein) shall be carried to the general funds of the College, to be applied towards the maintenance of Open Scholarships in the manner directed by the Statutes of the College.

3.—Sterne Scholarships.

From the date of the confirmation of this Statute there shall be no further election to any of the four Scholarships at Jesus College founded by Archbishop Sterne.

All the emoluments derived by the College from the said Foundation shall be carried to the general funds of the College, to be applied towards the maintenance of Open Scholarships in the manner directed by the Statutes of the College.

Two of the Scholarships thus created shall bear the name of "Sterne Scholarships," but shall be in all other respects on the same footing with the other Scholarships of the College.

4.—Brunsell Scholarships.

[Objected to by College.]

Given under our common seal, this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 4th of August 1860, under the 19th & 20th Vict. c. 88, for the future Government and Regulation of JESUS COLLEGE, for the future Regulation of the BRUNSELL Scholarships, and for the distribution of the general Scholarship Fund, and for the future Regulation of the Foundation of Mr. TOBIAS RUSTAT at the said College, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for "the good Government and Extension of the University of "Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the two following Statutes (numbered Cap. X. and Cap. XXXI. respectively), for the future government and regulation of Jesus College, in the University of Cambridge; that is to say,—

CAP. X.—De Scholaribus in Collegio exhibendis.

Item statuimus, ordinamus, et volumus quod in Collegio sint quindecim Scholares quos in Elementis Religionis tam Naturalis quam divinitus patefactæ, Disciplinis Mathematicis et Physicis, Literis Humanioribus, aliaque Studiorum materia per Ordinationem aliquam Academiæ præscripta, continue studere volumus.

Dictos vero Scholares per Magistrum et Socios modo et forma quæ in Sociis eligendis præscripta sunt eligi et admitti volumus, quoties locus alicujus Scholaris vacaverit, quamprimum illis commodum visum fuerit; ita tamen ut electio non differatur ultra spatium unius anni a vacatione prædicta.

Proviso semper quod nullus horum Scholarium gaudeat emolumento suo ultra terminum post matriculationem suam decimum, nisi Magistro et Sociis aliter visum sit; quod si contingat aliquem istorum Scholarium super ullo crimine diffamari notabili unde Collegio nascatur infamia, juxta judicium Magistri vel, eo absente, Præsidentis et majoris partis Sociorum, expellatur a Collegio ipso facto. Proviso insuper quod si aliquis Scholaris, sine legitima causa per Magistrum vel, eo absente, Præsidentem et majorem partem Sociorum approbanda,

banda, sese per majorem partem unius termini a Collegio absentaverit, licebit Magistro vel, in ejus absentia, Præsidenti et Sociis, in ejusdem locum alium Scholarem eligere et admittere.

CAP. XXXI.—Quid et quantum Magister, Socii et Scholares percipient de bonis Collegii.

Item statuimus, ordinamus, et volumus ut ex reditibus, proficuis, aliisque annuis Collegii receptis provideatur;

1^mo^ de solutione omnium pensionum quæ per hæc Statuta, vel per quodlibet legitimum decretum jam editum vel in futurum edendum, persolvendæ requirantur;

2^ndo^ de reparationibus ædium necessariis, salariis Servientium Collegii, aliisque cujuscunque fuerint generis, ordinariis oneribus;

3^tio^ de communis Magistri, et Sociorum prout eædem secundum judicium Magistri vel, in ejus absentia, Præsidentis et majoris partis omnium Sociorum fuerint constitutæ; et his omnibus rite peractis et persolutis, vicesima pars summæ tum restantis in usum et emolumentum Collegii cedat; altera etiam vicesima pars summæ ejusdem in usum et emolumentum Scholarium Collegii cedat. Quod vero deinde ex præfatis reditibus, proficuis, et receptis supererit, id volumus ut inter Magistrum et Socios pro tempore existentes dividatur, ea tamen lege ut Magistro duplum, ut solet, ejus quod quisque Socius percipiat, assignetur.

Volumus insuper ut Magister cameram seu cameras eas habeat quas Magistri hactenus habere consueverint; habeant vero Socii cameras, eis per Magistrum vel, eo absente, Præsidentem, secundum eorum senioritatem assignandas.

Given under our common seal, this Fourth day of August, in the year of our Lord One thousand eight hundred and sixty.

L. S.

STATUTE

STATUTE for Mr. Rustat's Foundation in Jesus College.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Pro- "vision for the good Government and Extension of the Uni- "versity of Cambridge, of the Colleges therein, and of the "College of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statute concerning the Scholarships on the Foundation of Mr. Tobias Rustat, in Jesus College.

1. Candidates for Scholarships on the Foundation of Mr. Tobias Rustat shall be the Orphans, or, in default of such Candidates, the sons of Clergymen who have been ordained Priests according to the rites of the United Church of England and Ireland; provided that such Candidates have received a competent classical education, and do not moreover possess sufficient means for supporting themselves at the University.

2. The Scholars on this Foundation shall be called "*Rustat Scholars*," and shall be elected by the Master and Fellows of Jesus College, in the same manner as the Scholars of the College.

3. The Scholars on this Foundation shall be required to attend College Lectures and College Examinations like the rest of the Scholars and Students of the College, and in addition they shall annually pass a special examination both in Classics and Mathematics. The particular subjects of such examination shall be regulated from time to time by the Master and Fellows.

4. Every Scholar on this Foundation shall proceed to the degree of Bachelor in Arts, and shall (except in case of sickness, or for other reasonable cause to be approved by the Master and Fellows) be required to pass at the proper time or times all examinations prescribed by any Statute or Ordinance of the University in order to that degree, otherwise he shall forfeit his Scholarship.

5. The stipend of each Scholar on this Foundation shall commence from the day of his election; and the Scholarship shall be tenable (subject to the regulations hereinbefore contained) until the Michaelmas next following the term when the Scholar proceeds to the degree of Bachelor of Arts, provided that he continue to reside in the University; other-

wise his Scholarship shall become vacant at the end of that quarter in which he proceeds to the degree of Bachelor of Arts.

6. Except as otherwise directed in these Statutes, the Scholars on this Foundation shall be subject to the provisions of the College Statutes with respect to Scholars and other persons *in statu pupillari*.

7. The Master of Jesus College, the Vice-Chancellor, the Provost of King's College, and the Master of Trinity College, for the respective times being, shall continue as heretofore to be Visitors of this Foundation. But in case any of those three persons happen to be Vice-Chancellor, or be unable to attend the annual audit of this Foundation, then the Master of St. John's College for the time being shall act for that year in the place of whichever of the above-named Visitors may be absent.

8. There shall be a Bursar to be appointed by the Master of Jesus College, for the time being, to be called the "*Rustat Bursar*;" whose office shall be to receive all rents and profits, and to make all payments connected with this Foundation, and who shall receive such an annual stipend as the Visitors may think it just to assign to him.

9. The duty of the Visitors shall be to audit all accounts connected with this Foundation, and to give such directions as may be requisite with regard to the disposal of such surplus money as may remain from year to year after all lawful demands upon the funds of this Foundation have been satisfied.

Given under our common seal, this Fourth day of August, in the year of our Lord One thousand eight hundred and sixty.

L. S.

We,

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Pro- "vision for the good Government and Extension of the Uni- "versity of Cambridge, of the Colleges therein, and of the "College of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the two Statutes next following with respect to the Brunsell Scholarships at Jesus College, in the University of Cambridge, and with respect to the General Scholarship Fund, at the same College respectively:

1.—Brunsell Scholarships.

From the date of the confirmation of this Statute there shall be no further election to any of the three Scholarships at Jesus College, founded by Dr. Henry Brunsell.

Out of the emoluments derived by the College from the benefaction of the said Dr. Henry Brunsell, the sum of forty pounds shall be annually carried to the general funds of the College, to be applied towards the maintenance of open Scholarships in the manner directed by the Statutes of the College.

Two of the Scholarships thus created shall bear the name of "Brunsell Scholarships," but shall be in all other respects on the same footing with the other Scholarships of the College.

2.—Distribution of General Scholarship Fund.

All such of the emoluments derived by the College from the foundations of Mrs. Sarah Jones, Mr. William Marshall, Lady Price, the Rev. John Sykes, Dr. John Mawhood, Archbishop Sterne, and Dr. Henry Brunsell respectively, as shall be, in pursuance of the several Statutes made with regard to those foundations respectively, carried to the general funds of the College, to be applied towards the maintenance of open Scholarships in the manner directed by the Statutes of the College, together with that one twentieth part of the net divisible revenues of the College, which is directed by Cap. XXXI. of the Statutes of the College to be set apart for the use and emolument of the Scholars of the same, shall be united into one general fund for the maintenance of open Scholarships in the College.

Out of the fund thus constituted there shall be paid to the fifteen Scholars of the College the following sums, namely:—

To five of the said fifteen Scholars not less than fifty pounds per annum each.

To six of the said fifteen Scholars not less than thirty pounds per annum each.

To four of the said fifteen Scholars not less than twenty pounds per annum each.

Given under our common seal, this Fourth day of August, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 13th of June and the 17th of July 1860, under the 19th & 20th Vict. c. 88, respecting the SCHOLARSHIPS founded by Mr. THOMAS CAVE and the BYE-FELLOWSHIPS and other SCHOLARSHIPS at CLARE COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statute with respect to the Scholarships founded by Mr. Thomas Cave, at Clare College, in the said University.

From the date of the confirmation of this Statute the two Scholarships founded by Mr. Thomas Cave at Clare College, Cambridge, with a right of preference in the election to the same for Scholars educated in the Free Grammar School of Wakefield, and born within the town or parish of Wakefield, shall be converted into two Exhibitions.

In the election to these Exhibitions the same right of preference shall be enjoyed by Scholars from Wakefield Grammar School,

School, and among such Scholars by persons born in the town or parish of Wakefield, to which they are now entitled in respect to the said Scholarships.

The net annual proceeds of the property bequeathed by Mr. Thomas Cave to the Master and Fellows of Clare College for the maintenance of the said Scholars shall be equally divided between the persons holding the two Exhibitions.

The Candidates for such Exhibitions shall be subject to such examination as the Master and Fellows of Clare College shall think proper in order to s certain their fitness to become Students of the College.

Whenever a vacancy of any such Exhibition shall occur, notice of such vacancy, and also of the time and place of the examination and election for the same, shall be given by the Master and Fellows of Clare College to the Head Master of Wakefield Grammar School at least two calendar months before the election to such vacancy.

If no duly qualified candidate shall present himself from Wakefield School, or none such of sufficient merit to deserve, in the opinion of the Master and Fellows of Clare College, to be elected to such Exhibition, the Exhibition then vacant shall be treated as open to general competition.

Every Exhibitioner shall be subject to such regulations as to residence, instruction, and discipline as the Master and Fellows shall from time to time determine; and may be deprived of or suspended from his Exhibition by the Master and Fellows for any misconduct which shall in their judgment merit such deprivation or suspension.

Each of the Exhibitions shall be tenable until the person holding it shall be of standing to take the degree of Bachelor of Arts; or, if the Master and Fellows of Clare College think fit, until he is of standing to take the degree of Master of Arts, but no longer.

No person shall be entitled to preference in the election to any such Exhibition in respect to his having been educated at Wakefield School, unless he shall have been educated at such school for two years at the least next preceding the election, or next preceding his matriculation in the University.

Given under our common seal, this Thirteenth day of June, in the year of our Lord One thousand eight hundred and sixty.

L. S.

Statute concerning Bye Foundations at Clare College.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College "of King Henry the Sixth at Eton," do hereby, in virtue of the powers given to us by the said Act, make the following Statute with respect to the several Fellowships and Scholarships at Clare College, in the University of Cambridge, enumerated therein.

General Statute concerning Bye-Fellowships and Scholarships.

From the date of the confirmation of this Statute there shall be no further election to the Fellowship at Clare College, founded by Mr. John Borage, nor to either of the two Fellowships at the same College, founded by Mr. Thomas Philpot, and known as "Kentish Fellowships," nor to any of the Scholarships enumerated in the Schedule hereunto annexed.

The funds of the various Scholarships enumerated in the Schedule hereunto annexed, together with the funds of the Borage Fellowship and the two Kentish Fellowships (above enumerated), and also so much of the funds of the Foundations of the Earl of Exeter, of Mr. Freeman, and Mr. Diggons, respectively, as shall remain after paying the stipend of the existing Fellows on such Foundations at the same rate as at present, shall be carried to the general funds of the College, to be distributed in the manner directed by the Statutes of the College.

Schedule to the above.

The Earl of Exeter's six Scholarships.
The Countess of Exeter's two Scholarships.
Mr. Freeman's two Scholarships.
Mr. Diggons' four Scholarships.
Dr. Leeds' ten Scholarships.
Mr. Scrivener's Scholarship.

Mr.

Mr. Marshall's Scholarship.
Mr. Pyke's two Scholarships.
Mr. Wilson's two Scholarships.
Dr. Green's six Scholarships.
Sir John Trott's Scholarship.
Mr. Cherry's Scholarship.
Mr. Hinman's Scholarship.
Mr. Stephenson's Scholarship.

Given under our common seal, this Seventeenth day of July, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 24th of October 1860, under the 19th & 20th Vict. c. 88, for the Repeal of the previously existing Statutes of CLARE COLLEGE, in the said University of Cambridge, and concerning MARRIED FELLOWS at the said College.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College "of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future regulation of Clare College, in the University of Cambridge:

Repeal of previously existing Statutes.

From and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of Clare College, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Par-

liament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to "make further Provision for the good Government and Ex- "tension of the University of Cambridge, of the Colleges "therein, and of the College of King Henry the Sixth at "Eton," shall be of any force and effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College elected before the date of an Order of Her Majesty in Council confirming the Statutes made by us the Commissioners appointed under the said Act, which Statutes are dated the sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

And save and except so much of the said former Statutes as relate to the powers and functions of the Visitor thereof, which shall be and remain in force as heretofore.

From and after the approbation of this Statute by Her Majesty in Council, all the former Statutes of the College shall stand and be repealed, except and subject as aforesaid.

Given under our common seal, this Twenty-fourth day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College "of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following

lowing Statute for the future government and regulation of Clare College, in the University of Cambridge:

OF MARRIED FELLOWS.

No person shall be ineligible to a Fellowship by reason of marriage, nor shall any Fellow hereafter elected vacate his Fellowship by marriage, but no married Fellow shall in any case be entitled to reside in College.

Given under our common seal, this Twenty-fourth day of October, in the year of our Lord one thousand eight hundred and sixty.

L. S.

COPIES of TWO STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 31st of July 1860, under the 19th & 20th Vict. c. 88, respecting the FELLOWSHIP founded by the Rev. DRURY DRURY, and respecting the TWO FELLOWSHIPS founded by the Rev. Dr. MILLINGTON, respectively, at MAGDALENE COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statute concerning the two Fellowships at the College of Saint Mary Magdalene, in the University of Cambridge, founded by the Rev. Dr. Millington.

The right of preference in the election to the two Fellowships founded by the Rev. Dr. Millington, at Magdalene College, in the University of Cambridge, heretofore enjoyed

 by

by persons educated at the Grammar School of Shrewsbury, is hereby abolished.

The two Fellowships on the Foundation of the Rev. Dr. Millington shall (after the expiration of existing rights) be consolidated into one Fellowship, the election to which shall be made in the same manner as that to the Foundation Fellowships of the College, and such Fellowship shall thenceforth be considered as an Open Fellowship on the Foundation of the College.

Given under our common seal, this Thirty-first day of July, in the year of our Lord One thousand eight hundred and sixty.

L. S.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statute with respect to the Fellowship founded by the Rev. Drue Drury, at Magdalene College, in the University of Cambridge.

In any future election to the Fellowship founded by the Rev. Drue Drury, such election shall be made by the governing body of Magdalene College; and it shall not be necessary for them in any such election to have regard to any special restriction or limitation upon their choice contained in the will of the Founder; but the election shall be made in all respects in the same manner as that to the Foundation Fellowships of the College.

Any Fellow hereafter elected upon the Foundation of the Rev. Drue Drury shall be subject to the same rules and conditions as to residence and tenure of his Fellowship as the Fellows on the Foundation of the College, and shall not be subject to any other restrictions or limitations than the other Fellows of the College.

The

The emoluments derived by the College from the Benefaction of the Rev. Drue Drury shall (subject and without prejudice to any existing interest in the same) be carried to the general funds of the College, to be applied in the manner directed by the Statutes of the College.

Given under our common seal, this Thirty-first day of July, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d and 24th of October 1860, under the 19th & 20th Vict. c. 88, for the Repeal of the previously existing Statutes, and for the gradual introduction of the proposed changes in the Distribution of the Revenues of MAGDALENE COLLEGE.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament, holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Pro-"vision for the good Government and Extension of the Uni-"versity of Cambridge, of the Colleges therein, and of the "College of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future regulation of Magdalene College, in the University of Cambridge:

Repeal of previously existing Statutes.

From and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of Magdalene College, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act "to make further Provision for the good Government and Ex-

"tension of the University of Cambridge, of the Colleges "therein, and of the College of King Henry the Sixth at "Eton," shall be of any force and effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College elected before the date of an Order of Her Majesty in Council, confirming the Statutes made by us, the Commissioners appointed under the said Act, which Statutes are dated the sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

And save and except so much of the said former Statutes as relate to the powers and functions of the Visitor thereof, which shall be and remain in force as heretofore.

From and after the approbation of this Statute by Her Majesty in Council, all the former Statutes of the College shall stand and be repealed, except and subject as aforesaid.

Given under our common seal, this Twenty-third day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future government and regulation of Magdalene College, in the University of Cambridge:

When and as soon as the interests to be regulated by the previously existing Statutes shall have expired or otherwise determined to such an extent as may, in the judgment of the Master and Fellows, enable the distribution described in the new Statutes of the College to be partially carried into effect without prejudice to such of those interests as may not have expired or otherwise determined, the Master and Fellows shall from time to time, as circumstances will permit, bring into

into operation so much and such part or parts of the prescribed distribution as they shall deem most expedient, and in the meantime, and until the expiration of all the existing rights and interests, it shall also be competent to them, upon or at any time, and from time to time after the election of any of the four additional Fellows, tō assign to the Fellows so elected such emolument (not exceeding one-tenth of the surplus annual revenue mentioned in Statute XVIII. of the new Statutes of the College), as to them shall seem fit.

Given under our Common Seal, this twenty-fourth day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES and SUPPLEMENTAL STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 16th of May 1860, under the 19 & 20 Vict. c. 88, for the future Government and Regulation of CORPUS CHRISTI COLLEGE, in the said University of Cambridge.

WHEREAS the Statutes given to the College of Corpus Christi and of the Blessed Mary, in the University of Cambridge, by Henry Duke of Lancaster, the Founder of the same, commencing with the following preamble,—

Præfatio Domini Fundatoris.

"Ad perpetuam rei memoriam. Cum nos, Henricus Dux "Lancastriæ Aldermannus et Confratres Gildæ Corporis "Christi et Beatæ Mariæ in Cantebrigia, ob specialem devo- "tionem et recordationem quam habemus in institutione "divinissimi Sacramenti Corporis et Sanguinis Domini, ab "Excellentissimo Principe Edwardo, Dei gratia Angliæ et "Franciæ Rege, licentiam impetravimus, quod in quodam "messuagio nostro cum pertinentiis in Cantebrigia prædicta "Eliensis Diœceseos, ubi vigere dinoscitur studium generale, "quandam Domum sive Collegium Sociorum, Scholarium, et "aliorum, sub nomine Domus sive Collegii Corporis Christi "et Beatæ Mariæ, per quendam Magistrum ejusdem Domus

" regendam, juxta ordinationem nostram infra scriptam, insti-
" tuere et fundare possimus;—Nos igitur Aldermannus et
" Confratres antedicti, cum consilio proborum et doctorum
" virorum de provida et pia gubernatione dictæ domus, cupi-
" entes recte et salubriter ad Dei gloriam et divini cultus
" augmentum providere, sic statuendum et ordinandum duxi-
" mus,"

—have become in various respects obsolete through lapse of time, or unsuited to the altered character of the times; and it is expedient that the same should be revised and altered, and that Statutes should be made for the government of the College, with a view to promote the main designs of the Founder and the interests of the College as a place of Learning and Religious Education, in such manner as may be best adapted to the circumstances of the present time, We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled "An Act to make further provision for the good " Government and Extension of the University of Cambridge, " of the Colleges therein, and of the College of King Henry " the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statutes for the future government and regulation of the College of Corpus Christi and of the Blessed Mary, in the University of Cambridge.

Statuta Collegii Corporis Christi.

Stat. I.—De Numero eorum qui in Collegio sustentabuntur.

Imprimis statuimus et ordinamus quod sint perpetuo in dicto Collegio unus Magister sive Custos ejusdem Collegii; duodecim Socii; duo Bibliotistæ; sex Scholares. Qui quidem omnes juxta Statuta et Ordinationes subsequentes eligantur et habeantur in Collegio prædicto in perpetuum. Quem quidem numerum tam Sociorum quam Bibliotistarum et Scholarium augeri volumus juxta sanum judicium Magistri et Sociorum omnium, cum consensu Visitatoris, prout pro utilitate dictæ domus et pro statu reddituum et possessionum ejusdem commodum eis visum fuerit et necessarium.

Stat. II.—De Qualitatibus et Electione Magistri.

Statuimus et ordinamus ut Magister sive Custos sit Presbyter Ecclesiæ Anglicanæ; bonæ famæ et vitæ honestæ; providus et circumspectus; Sacræ Theologiæ Professor, vel Sacræ

Sacræ Theologiæ Baccalaureus, vel ad minimum cui gradum Sanctæ Theologiæ Baccalaurei juxta statuta Academiæ infra triennium electionis suæ suscipere licebit. Qui quidem Magister sive Custos teneatur gradum Sanctæ Theologiæ Professoris suscipere quam primum per statuta et ordinationes Academiæ licuerit, nisi ob gravem causam per majorem partem Sociorum approbandam. Cum autem contigerit officium dicti Magistri per mortem, resignationem, privationem, vel cessionem, aut alio quovis modo imposterum vacari; Volumus ut alius Magister idoneus per Socios ejusdem, seu per majorem partem eorum, de seipsis aut aliis eligatur, prout secundum Deum et pro commodo dictæ domus melius viderint expedire. Et hujusmodi electio Cancellario sive Procancellario notificetur per duos Socios Collegii, qui in electione præsentes fuerint, simpliciter approbanda, sed non examinanda nec impugnanda quovis modo. Nec per hoc habeat Cancellarius sive Procancellarius dictæ Universitatis potestatem sive jurisdictionem dictam electionem cassandi seu impugnandi, sive de statu dictæ domus aliqualiter ordinandi, contra formam ordinationis nostræ prædictæ.

Stat. III.—De Modo eligendi Magistri.

Statuimus quod, vacante ut supradictum est officio Magistri, immediate infra tres dies ejusdem vacationis cognitæ et perspectæ, senior Socius, qui tunc domi in Collegio fuerit, sub pœna amissionis vocis suæ in electione sequenti, faciat omnes Socios ejusdem Collegii convocari in villa præsentes. Quibus sic convocatis, assignabit diem et horam electionis futuræ, quam volumus post hujusmodi convocationem omnino ante diem tricesimum, non autem ante diem decimum tertium fieri; Socios etiam absentes, quantum fieri poterit, de die et hora electionis futuræ certiores faciat. Quod si infra illos tres dies significare diem electionis prædictus Senior noluerit, vel per negligentiam omiserit, tunc statim die sequente post hos tres dies sic elapsos liberum sit proximo Socio seniori tunc præsenti diem et horam constituere electionis secundum formam prædictam.

Proviso semper quod septem ex Sociis prædictis ad minimum intersint hujusmodi electioni, si tot Socii eo tempore superfuerint. In qua quidem Electione, – invocata prius gratia Spiritus Sancti, habitaque brevi exhortatione per seniorem præsentem ut eum Magistrum præficiendum curent, quem putaverint Collegio fore maxime commodum et idoneum,— volumus illum seniorem adjungere sibi proxime seniorem, qui

sua ipsorum suffragia suis manibus scripta primi ferent, deinde omnium Sociorum præsentium etiam suis ipsorum manibus suffragia scripta accipiant. Quibus bene consideratis inter se, illum Magistrum senior Socius, vel ille alter, qui cum seniore in scrutinio stetit, statim absque dilatione, sub pœna amissionis sodalitii sui, sic electum pronunciabit, quem major pars Sociorum præsentium suffragiis elegerit. Quod si contigerit ut equales voces sic eligentium fuerint, tunc illa pars, cui Socius ille maxime senior inclinaverit, præponderet in electione prædicta.

Proviso quod, si in primo scrutinio in electione Magistri major pars Sociorum præsentium non convenerit, tunc iterum ac tertio ad simile scrutinium accedant, donec aliquis in Magistrum per majorem partem electus fuerit. Quod si in tertio scrutinio non congruerint, tunc volumus illum in Magistrum præfici, quem Cancellarius vel eo absente Procancellarius ex personis per Socios nominatis duxerit maxime idoneum. Postquam autem hujusmodi electio facta fuerit et pronunciata, tunc teneatur prædictus senior eandem Magistro sic electo significare, cum primum commode fieri potest, eumque coram Societate personaliter præsentare. Quibus sic peractis, antequam ad administrationem aliquam se intromittat, volumus eum præstare professionem, seniore Socio illam proponente sub hac forma verborum quæ sequitur.

Professio Magistri.

Profiteberis quod officium Magistri sive Custodis pro tempore gubernationis tuæ fideliter præstabis. Statuta, Ordinationes, et Consuetudines laudabiles hujus Collegii, quantum in te est, salva observabis, eademque Statuta diligenter et fideliter exequeris; et ab aliis, quantum in te est, observari procurabis. Bona et Possessiones dicti Collegii fideliter custodies, custodirique facies. Ita fidem dabis. Qua professione præstita admittatur a Socio seniore, sed in propria persona in ipso Collegio, sub hac forma verborum quæ sequitur: Auctoritate mihi commissa admitto te Magistrum hujus Collegii in nomine Patris et Filii et Spiritus Sancti. Amen.

Stat. IV.—De Officio Magistri.

Quoniam Magistrum vigilantem esse decet, velut oculum in corpore, qui reliquis corporis membris diligenter prospiciat; —Statuimus et volumus ut Magister, qui pro tempore fuerit, cum omni sollicitudine præsit, Socios et Scholares Collegii aliosque quoscunque in dicto Collegio commorantes moneat, increpet, arguat, obsecret, ut singuli suas partes et officia præstent.

Ad

Ad hæc statuimus et ordinamus, ut Magister ipse, vel substitutus suus, una cum Senescallo ad hoc munus annuatim deputando, de triennio in triennium supervideat domos, tenementa, ædificia, terras, cæterasque possessiones Collegii prædicti, et ita diligenter observet quæ reparanda et ædificanda fuerint, sive per Tenentes et Firmarios, sive per expensas Collegii, ut in nullo eorum ruinæ, destructiones, vel deteriorationes reddituum, aut firmarum diminutiones, ob defectum debitæ supervisionis accidisse inveniantur.

Præterea nolumus Magistrum prædicti Collegii terras aut tenementa ulli locare sine consilio et consensu majoris partis Sociorum; aut bona Collegii mobilia vendi quovismodo absque expresso consensu Magistri et majoris partis Sociorum; aut possessiones et bona immobilia dicti Collegii permutari vel alienari, nisi propter magnam utilitatem vel necessitatem Collegii a Cancellario vel Procancellario, dicto Magistro, et octo Sociis ad minimum approbandam. Et si quid locatum vel dimissum fuerit per Indenturam, prius scribatur in Registro ad hoc deputato.

Stat. V.—De Qualitatibus eligendorum in Socios.

Statuimus et ordinamus quod in electione Sociorum Collegii prædicti Magister et Socii ejusdem Collegii, qui per scrutinium Socios co-optant, eligant simpliciter meliores, non habendo respectum ad aliquam affectionem carnalem, nec instantiam seu requisitionem aliquorum, aut procurationem, sed quos cognoverint esse honestos, castos, humiles, pacificos, et modestos, graduatos, et qui proxima determinatione post electionem suam actualiter procedant.

Volumus etiam ut in electione Sociorum talis ratio habeatur, ut eorum tres ad minimum sint in Presbyteratus ordine constituti. Socios etiam omnes Magistro volumus et ordinamus, una cum cæteris omnibus in dicta domo commorantibus, subesse, et eidem in licitis et honestis, pro statu, utilitate, et regimine dictæ domus salubriter in omnibus obedire.

Stat. VI.—De Electione Sociorum.

Electionem autem Sociorum ad hunc modum fieri volumus. Sodalitio jam vacante, Magister, ubi ad utilitatem Collegii prædicti conducere judicaverit, Socios in villa præsentes convocandos curet; quibus sic convocatis, assignabit diem et horam electionis futuræ, quam volumus post hujusmodi convocationem omnino ante diem quindecimum fieri; Socios

etiam absentes, quantum fieri poterit, de die et hora electionis futuræ certiores faciat. Quo facto, Magister et Senior Socius tunc præsens vel in Sacello vel in conclavi Magistri seorsim a cæteris Sociis stabunt, et primo suffragia sua in scriptis ferent, deinde reliqui Socii in ordine omnes sua quisque vota similiter in scriptis ferent. Et in quem ex omni numero sic præsentium major pars, (vel etiam dimidia pars, si in ea includatur Magister,) consenserint, is pro Socio habeatur. Quod si vota alio quovis modo divisa fuerint, tunc volumus ut bis aut ter infra triduum ad eligendum conveniant. Et si in tertio scrutinio non possunt juxta modos præscriptos consentire, tunc ille ex nominatis per Socios in Socium eligatur quem Magister nominaverit. Proviso semper quod Magister et sex Socii ad minimum intersint hujusmodi electioni, si tot Socii eo tempore superfuerint. Proviso etiam quod sodalitio vacante, hujusmodi electio semper intra annum post vacationem ejus fiat, vel saltem ante diem primum mensis Maii post annum a tempore vacationis finitum proximo sequentis.

Stat. VII.—De Admissione Sociorum.

Hi autem Socii singuli in admissionibus suis talem præstabunt professionem ut sequitur.

Ego (M. N.) profiteor me veram Christi religionem secundum regulam et doctrinam Ecclesiæ Anglicanæ ex animo amplecti; Auctoritatem Regiam in omnibus hominibus et causis ejus dominationis summam, et externorum Episcoporum Principum et Potestatum quarumcunque jurisdictioni nullo modo subjectam æstimare. Ita do fidem.

Profiteor quod observabo omnia Statuta et laudabiles Consuetudines Collegii nostri quamdiu in eo versatus fuerim. Et quod Magistro sive Custodi hujus Collegii obediens ero in omnibus licitis et honestis. Et quod Collegii honorem et utilitatem, quantum in me est, meo consilio et auxilio juvabo. Et quod secreta Collegii, quæ in damnum infamiam sive præjudicium ejusdem cedere possint, nulli extra societatem revelabo, nisi legitima auctoritate coactus. Ita fidem do.

Qua Professione præstita admittatur a Magistro sub hac forma verborum quæ sequitur: Auctoritate mihi commissa admitto te Socium hujus Collegii in nomine Patris et Filii et Spiritus Sancti. Amen.

Stat. VIII.—De Residentia Magistri et Sociorum.

Statutum est ut Magister Collegii resideat in dicto Collegio singulis annis per spatium sex mensium inter primum diem

diem mensis Octobris et ultimum diem mensis Julii conjunctim vel divisim, nisi rationabilis causa ipsum excuset per majorem partem Sociorum approbanda. Quo tempore volumus illum præsentem esse in Collegio, nisi gravis infirmitas, regia, aut magna et urgentia Collegii negotia impedierint.

Socio extra Universitatem abesse permittatur, si Magistro postulanti causam absentiæ justam et honestam reddiderit; ita tamen ut, quandocunque Magistro propter Collegii commodum et utilitatem visum fuerit, redire teneatur. Nemini autem Sociorum munus quodvis intra Collegium gerenti, abesse liceat, si vel Magistro vel majori parti Sociorum absentia ejus Collegio detrimenti causa videatur.

Si quis Sociorum revocatus in Collegium a Magistro non redierit; vel si quis, munus gerens, revocatus in Collegium vel a Magistro vel a majore parte Sociorum non redierit, a Collegio et omnibus ejus emolumentis amoveatur et pro non Socio habeatur.

Proviso semper quod Magister diligenter caveat ne omnes Socios simul et eodem tempore in ipsius absentia extra Universitatem abesse permittat, nisi in gravi pestis infectione, quo etiam tempore de Collegii securitate et custodia diligenter provideatur.

Stat. IX.—De Magistri, si res exigat, Amotione.

Si Magister a fide et communione Ecclesiæ Anglicanæ, uti legibus regni stabilita extat, aperte secesserit, tunc Visitator, re quam primum commode possit investigata ac demonstrata, illum a Magistratu absque mora amoveat.

Si porro Magister cujuscunque criminis coram Judice legitime damnatus fuerit, licebit Visitatori, si ei videatur, rem investigare; et, si ita e Collegio esse censeat, Magistrum omnino amovere.

Si octo ad minimum ex Sociis coram Visitatore Magistrum accusent de turpi conversatione, aut malegesta administratione, aut gravi negligentia, unde Magister esse indignus factus sit, tunc Visitator, quam primum commode possit, accusationem audiet, et, re demonstrata, licebit ei, si ita e Collegio esse censeat, Magistrum amovere.

Stat. X.—De Vice Magistro.

[Objected to by College.]

Stat. XI.—De Salario Magistri.

Volumus etiam ut Magister habeat principalem mansionem in dicto Collegio, cum horto eidem annexo, cum stabulo pro equis suis, et aliis locis necessariis pro fæno imponendo, ad hunc usum ordinatis, sive imposterum ex consensu omnium Sociorum ordinandis.

Desinat autem in posterum jus omne Magistri quoad Rectoriam de Abchurch Londini: accipiat vero Magister e redditibus Collegii pro jure quod hactenus habuit ad ecclesiam supradictam stipendium annuum centum librarum pecuniæ.

Stat. XII.—De Mensa Communi.

Volumus insuper quod Magister et Socii mensam communem habeant in Domo prædicta impensis Collegii: ubi se quiete et honeste gerent. Et quod singulis diebus sumptus cujuslibet eorundem duos solidos, nisi ex necessaria causa et honesta, non excedant. Volumus etiam ut Magister, Sociis ac cæteris perhendinantibus, cameras juxta arbitrium et judicium suum assignet.

Stat. XIII.—De Redditibus Collegii dividendis.

Statuimus etiam quod post annuum Computum,—stipendiis Officialium et Scholarium primum solutis, omnibus etiam solutionibus quæ per hæc Statuta vel per aliam legitimam auctoritatem præscribentur rite factis, et cæteris necessariis sumptibus juxta morem Collegii suppeditatis,—quod superest de redditibus Collegii in quatuordecim partes dividatur, quarum duas Magister, singulas singuli Socii percipiant.

Stat XIV.—De suscipiendis Sacris Ordinibus.

[Objected to by College.]

Stat. XV.—De Causis Sodalitii vacandi.

Si quis Sociorum aliunde substantiam ad annuum valorem dupli sodalitii in temporalibus consequutus fuerit; cesset tunc omnino in ejus persona exhibitio in domo prædicta: ita quod nihil inde percipiet in futurum, nisi per dictos Magistrum et Socios dictæ domus, ex causa rationabili, et pro profectu domus, secum fuerit dispensatum. Si vero aliquis Sociorum prædictorum

prædictorum Beneficium Ecclesiasticum ad valorem annuum sodalitii assecutus fuerit; aut ad quodvis Beneficium Ecclesiasticum, extra villam Cantabrigiam, a Magistro et Sociis præsentatus fuerit; tunc statim, finito primo anno postquam institutus fuerit in illud Beneficium, cesset omnino in ejus persona exhibitio in domo prædicta. In valore autem annuo proventuum sive temporalium sive ecclesiasticorum æstimando, prius deducatur quicquid ex iis per necessitatem Legis sit solvendum. Item si quis Socius uxorem duxerit, sodalitium ejus statim vacet ipso facto. Si quis autem Sociorum munus Professoris Academiæ gerat, ex quo non ultra quingentas libras communibus annis percipiat, licebit ei sodalitium retinere, etiamsi uxorem duxerit, quamdiu idem munus gerat. Proviso tamen quod non sint ultra duos Socios eodem tempore qui sic uxores duxerint: nec liceat Socio, qui uxorem duxerit, cameram habere vel habitare in Collegio.

Stat. XVI.—Propter quæ Crimina et Delicta Socii debeant penitus amoveri.

Si quis Sociorum palam a fide et communione Ecclesiæ Anglicanæ, uti legibus regni stabilita extat, secesserit, Magister Socios, excepto illo de quo res agitur, quamprimum fieri potest convocet; et si, post inquisitionem diligenter factam, Magistro et Sociis ita convocatis rem ita se habere constiterit, omne jus et emolumentum societatis ex eo tempore amittat Socius prædictus et alius in ejus locum eligatur.

Si quis Sociorum coram tribunali legitimam auctoritatem habente de crimine cujuscunque generis convictus fuerit, Magister Socios, excepto illo de quo res agitur, quamprimum fieri potest convocet; et si, post inquisitionem diligenter factam, Magistro et Sociis ita convocatis rem ita se habere constiterit, liceat Magistro, cum consensu majoris partis Sociorum ita convocatorum, Socium prædictum a Collegio et omnibus ejus emolumentis amovere.

Si cuivis Sociorum coram Magistro crimen aliquod probrosum objiciant duo Socii quicunque, a quo infamia prædicto Socio oritura sit ita ut non Collegii societate frui dignus censeatur, Magister Socios, exceptis tribus prædictis, quamprimum fieri potest convocet; et si, post inquisitionem diligenter factam, Magistro et Sociis ita convocatis rem ita se habere constiterit, liceat Magistro, cum consensu majoris partis Sociorum ita convocatorum, Socium prædictum hujusmodi infamia notatum a Collegio et omnibus ejus emolumentis amovere.

Si quis Sociorum, Magistri judicio, crimen aliquod probrosum commiserit, a quo infamia ipsi oritura sit ita ut non Collegii societate frui dignus censeatur, Magister, si ei visum fuerit, Socios, excepto illo de quo res agitur, convocet; et si, post inquisitionem diligenter factam, Magistro et Sociis ita convocatis rem ita se habere constiterit, liceat Magistro, cum consensu majoris partis Sociorum ita convocatorum, Socium prædictum a Collegio et omnibus ejus emolumentis amovere.

Stat. XVII.—De Extraneis non inducendis.

Hoc autem Socii dictæ domus diligenter attendant inter se, ut nullus ipsorum extraneos aut propinquos inducendo dictæ suæ societati onerosus existat, ne per hoc aliorum turbetur tranquillitas, seu contentionis aut jurgiorum materia minus provide suscitetur.

Stat. XVIII.—De Contentionibus sedandis.

Contentiones vero et dissidia inter Socios dictæ domus suborta studeat Magister qui pro tempore fuerit, juxta consilium sanioris partis eorundem, caute et diligenter corrigere et sedare viis et modis quibus poterit opportunis. Sed ingravescente super hoc correptionis seu correctionis importunitate, Dominus Cancellarius vel Procancellarius Universitatis prædictæ, juxta factorum contingentium et excessuum compertorum qualitatem, si necesse fuerit, consulatur et convocetur de supervidendo statu ejusdem, cum per Magistrum et Socios dictæ domus debite fuerit requisitus.

Et, si quid corrigendum idem Cancellarius sive Procancellarius invenerit, emendari faciat, juxta consuetudinem Universitatis prædictæ; nihil tamen novi attemptet, statuat, ordinet, seu introducat, per quod nostræ ordinationi prædictæ in aliquo derogetur seu valeat derogari quoquo modo.

Stat. XIX.—De Computo.

Item statuimus et ordinamus quod quolibet anno, infra Quindenam ante vel post festum Purificationis Beatæ Mariæ, Magister, Senescallus, Œconomus, Ballivi reddant fidelem Computum de omnibus bonis et proventibus Collegii receptis per eos de anno terminato in festo Michaelis præcedente. Et quod sex ad minimum Socii ejusdem Collegii huic computo intersint. Eligantur autem duo ex Sociis qui vice Auditorum fungantur, quibus officium erit ante computum prædicto modo reddendum, expensa et accepta relata inspicere, et

si

si justa videantur nomina sua in schedulis inspectis subscribere; quibus Magister et Socii summam pecuniæ huic labori parem et æquam assignent. Quodque idem Senescallus tradat in fine computi sui nova rentalia, cum omnibus acquietantiis et aliis necessariis scriptis per se receptis, ut salve custodiantur in cistis Collegii prædicti. Item statutum est ut bona Collegio nostro spectantia diligenter in Inventariis (qualitatem et quantitatem eorum habentibus) scribantur; quorum unum exemplar volumus in cista communi servari, et de triennio in triennium per Magistrum et Socios ejusdem Collegii supervideri et renovari: et aliud penes Magistrum remanere.

Item statutum est ut Senescallus Ballivi et alii Ministri Collegii (si Magister et Socii dicti Collegii dubitent de sufficientia eorum) faciant securitatem eis de fideli computo reddendo, et arreragiis suis (si quæ fuerint) solvendis, et hoc ante admissionem suam.

Stat. XX.—De Senescallo.

Eligatur etiam singulis annis unus ex Sociis a Magistro in Senescallum Collegii. Proviso quod si quando Sociis videatur propter male gestam aut neglectam administrationem negotiorum Collegii, vel a Magistro ipso, vel a Senescallo per eum nominato, tunc licebit Sociis (duabus partibus eorum in hoc consentientibus) Socium alium ab ipsis designandum in locum Senescalli eligere.

Stat. XXI.—De Decano et Lectoribus.

Statuimus et ordinamus quod quolibet anno ante festum Nativitatis Beatæ Mariæ eligantur Decanus et Lectores, qui moderari et prælegere teneantur discipulis Collegii juxta morem aliorum Collegiorum. Qui quidem Decanus et Lectores habeant annuatim pro labore suo justum stipendium, juxta moderationem Magistri et majoris partis Sociorum in hujusmodi electione præsentium.

Stat. XXII.—De Tutoribus.

Tutores etiam in Collegio sint, unus vel plures, per Magistrum ipsum constituendi, cui etiam licebit Tutorem vel aliquem Tutoribus opem ferentem ab officio amovere, si ob causam justam et idoneam ita e Collegio esse censeat. Proviso tamen quod Socio ab officio Tutoris sic amoto sit jus provocandi ad Visitatorem.

Stat. XXIII.—De Lectionibus præscribendis.

Volumus insuper ut liceat Magistro et majori parti Sociorum si quod genus Lectionis vel exercitii Literarii præter ea quæ in Statutis præscribuntur plurimum ad eruditionis amplificationem valere judicabitur, illud cuique vel Sociorum perhendinantium vel discipulorum, quem vel quos ad illud præstandum maxime idoneum vel idoneos existimabunt, præscribere; quod si quisquam eorum cui tale aliquid sit constitutum illud efficere noluerit, puniatur juxta arbitrium Magistri et majoris partis Sociorum.

Stat. XXIV.—De Electione, Qualitatibus, Numero, Stipendio, Bibliotistarum et Scholarium.

Statuimus et ordinamus quod sint in dicto Collegio sex Scholares et duo Bibliotistæ, per Magistrum et Socios eligendi, ingeniosi, ac honestis moribus præditi, sufficienterque in Grammatica instructi. Bibliotistarum autem officium erit in Sacello legere sacra Biblia et aliter subministrare secundum assignationem et moderationem Magistri vel substituti sui.

Qui quidem Bibliotistæ cum cæteris Scholaribus ita se gerent in studiis et exercitiis suis scholasticis cæterisque officiis et moribus conversationis suæ, prout Magistro et Sociis juxta exigentiam status sui et pro honore et utilitate dicti Collegii de tempore in tempus semper videbitur magis expedire.

Recipiant autem dicti Scholares pro sustentatione sua singuli singulis annis triginta libras pecuniæ.

Proviso semper quod quilibet eorum actualiter gradum Baccalaureatus Artium infra quatuor annos immediate post ejus admissionem in hoc Collegium suscipiet, sub pœna amissionis hujus nostræ exhibitionis ipso facto, nisi Magister et Socii ei longius tempus concesserint. Et quod nullus prædictorum gaudeat exhibitione et sustentatione prædicta, post talem gradum susceptum, ultra tres integros annos proxime sequentes.

Stat. XXV.—De Disciplina Collegii.

Scholares atque alii omnes qui in statu pupillari sint ad debitam reverentiam et obedientiam erga Magistrum et cæteros Officiarios Collegii exhibendam teneantur; quiete et decore se gerant; Statuta omnia, atque ordinationes a Magistro et Sociis de tempore in tempus ad Collegium regendum faciendas observent. Si quis eorum Statuta vel ordinationes prædictas

prædictas observare neglexerit, aut culpam aliquam contra disciplinam Collegii. et bonos mores in se admiserit, per Magistrum, vel ejus vicem gerentem aut Decanum eorum vice fungentem, puniatur secundum arbitrium eorum. Proviso quod nemo a Collegio aut in tempus aut penitus amoveatur, neque Scholaris emolumentis suis privetur, nisi a Magistro et Sociis in hoc convocatis.

Stat. XXVI.—De Cista communi et de Sigillo.

Volumus etiam et ordinamus ut sit in Collegio nostro una magna Cista, cum tribus clavibus diversæ fabricæ. Quarum unam custodiat Magister domus prædictæ, et alias claves custodiant alii duo Socii, quos præfatus Magister et Socii ad hoc duxerint unanimiter eligendos. In qua quidem cista volumus Sigillum commune Collegii reservari, cum Chartis Regiis, et aliis scriptis et evidentiis quæ sunt maximi momenti, ultra alias etiam cistas pro aliis evidentiis custodiendis Collegio nostro pertinentibus.

Sigillum autem commune Collegii ne unquam scripto qualicunque apponatur, nisi præsentibus et consentientibus Magistro et tribus ad minimum ex Sociis Collegii.

Stat. XXVII.—De celebranda Memoria Benefactorum.

Statutum est ut Magister Collegii, vel qui in celebranda memoria Benefactorum circa finem Termini S. Michaelis ad concionandum fuerit ab eodem constitutus, recipiet a Senescallo Collegii pro singulis concionibus quadraginta solidos. Quo tempore autem memoriæ Benefactorum celebrantur, convivium præbeatur impensis Collegii; modo sumptus ne sit immodicus. Omnisque Eleemosina quæ antiquitus distribui post exequias solebat, hoc tempore pauperibus dividatur juxta discretionem Magistri et Sociorum præsentium.

Stat. XXVIII.—De Cultu Dei.

Singulis diebus, nisi siquando perpaucos ex Sociis, Discipulis, et Pensionariis in Collegio adesse contingat, officium Divini Cultus, horis congruis per Magistrum assignandis, celebretur in Capella Collegii, juxta formam in Ecclesia Anglicana, uti legibus regni stabilita extat, receptam et usitatam.

Licebit Magistro et Sociis identidem ordinationes de Cultu Dei rite celebrando facere, et statuere qui adesse celebrationi

 debeant,

debeant, et quibus abesse permittatur: et ordinationes mutare vel antiquare, prout optimum illis visum est.

Stat. XXIX.—De Lectione et Interpretatione Statutorum.

Statuimus ut singulis annis in principio computus in Collegio nostro hæc Statuta nostra prædicta clare legantur, tota societate tunc præsente. Et quod singuli Socii intersint lectioni prædictæ a principio usque ad finem sub pœna duodecim denariorum communiis applicandorum, nisi impediti fuerint legitima causa per Magistrum sive ejus deputatum approbanda. Item nolumus Magistrum vel Socios prædictos dicta Statuta vel eorum aliquod aliter interpretari vel declarare quam sensus grammaticalis præ se ferat.

Stat. XXX.—De Dubiis interpretandis.

Quod si dubium aliquod vel obscurum emerserit, quod judicio Magistri vel majoris partis Sociorum nequeat determinari; tunc volumus illud ambiguum judicio Cancellarii vel Procancellarii et duorum Doctorum (vel duorum in Sacra Theologia Baccalaureorum) in gradu maxime seniorum tunc in Universitate commorantium declarari et definiri.

Stat. XXXI.—De Nummorum Valore mutato.

Si aliquando, pro nummorum valoris, ut solet, mutationibus, pecuniarum summæ his Statutis assignatæ, vel posthac legitima auctoritate assignandæ, vel tenuiores vel ampliores, quam pro rei exigentia, Magistro et Sociis videantur, ita ut injuria vel incommodum sive Collegio ipsi, sive cuivis intra Collegium, exinde oriturum sit, liceat eis per scriptum Sigillo communi rite sigillandum, et a Visitatore Collegii approbandum, alias pecuniarum summas substituere, prout eorum judicio res exigere videatur.

Stat. XXXII.—De Sociis certioribus faciendis.

Ubicunque in his Statutis provisum est ut Sociorum aliquis de electione futura aut alia re urgente certior fiat, satis erit si literæ ad eum de tali re modo consueto mittantur. Unusquisque autem Sociorum teneatur statim post admissionem suam et identidem postea in registro quodam ad hoc designato et in Collegio servando, locum domicilii sui indicare, ad quem locum mittantur epistolæ omnes de negotiis Collegii.

Postremo

Postremo omnes hujus Collegii Socios et Studiosos vehementer in Domino hortamur, ut memores Beneficiorum quæ hujus rei gratia a Domino acceperint optimis studiis et omni pietati se totos consecrent. Statuta nostra diligenter et fideliter observent; nullam callidam aut sinistram interpretationem, contra ipsarum ordinationum sensum et mentem, adhibeant; sed firmas ac ratas habeant, suam et Ecclesiæ Dei utilitatem quærentes; et omnes conatus ad Domini ac Servatoris nostri gloriam illustrandam conferentes. Cui cum Patre et Sancto Spiritu sit omnis honor, gloria, et imperium in sæcula sæculorum. Amen.

Given under our Common Seal, this Sixteenth day of May, in the year of our Lord, One thousand eight hundred and sixty.

L. S.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for "the good Government and Extension of the University of "Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the three following supplemental statutes for the future regulation of Corpus Christi College, in the University of Cambridge:—

Supplemental Statutes.

I.—Payment for University Purposes.

[Objected to by College, and cancelled accordingly.]

II.—Preservation of Rights of the existing Master and Fellows.

The emoluments, tenure of office, and other interests of a pecuniary nature of the present Master, and of all Fellows elected before the confirmation of these Statutes by Her Majesty in Council, shall be regulated by the previously existing

existing Statutes: provided that if the Master or any such Fellow shall elect to be placed in these respects under the operation of the present Statutes, it shall be lawful for him to signify such election to the Master and Fellows by writing under his hand, and his rights in such respects shall be thenceforth governed by the present Statutes accordingly.

III.—As to bringing these Statutes into Operation.

When and so soon as the interests to be regulated by the previously existing Statutes shall have expired or otherwise determined to such an extent as may in the judgment of the Master and Fellows enable the distribution hereinbefore described to be partially carried into effect without prejudice to such of those interests as may not have expired or otherwise determined, the Master and Fellows shall from time to time, as circumstances will permit, bring into operation so much and such part or parts of the prescribed distribution as they shall deem most expedient.

Given under our Common Seal this Sixteenth day of May, in the year of our Lord, One thousand eight hundred and sixty.

L. S.

COPIES of Two Statutes framed by the Cambridge University Commissioners, on the 1st and 4th of August 1860, under the 19th & 20th Vict., cap. 88, respecting the Scholarship founded by Mr. John Stock, at Corpus Christi College in the said University of Cambridge; and for the future Government and Regulation of that College.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament, holden in the nineteenth and twentieth years of the Reign of Her Majesty Queen Victoria, intituled, "An Act to make further Pro-"vision for the good Government and Extension of the Uni-"versity of Cambridge, of the Colleges therein, and of the "College of King Henry the Sixth at Eton:" Do hereby, in execution

execution of the powers vested in us by the said Act, make the following Statute respecting the Scholarship founded by Mr. John Stock at Corpus Christi College, in the University of Cambridge:

From the date of the confirmation of this Statute by Her Majesty in Council there shall be no further election to the Scholarship at Corpus Christi College founded by Mr. John Stock, in 1780, for a Scholar from St. Paul's School.

In lieu thereof, there shall be established at the said College, an Exhibition of the value of Thirty pounds a year, for a Scholar educated at St. Paul's School, and recommended by the Head Master.

No person shall be entitled to present himself as a candidate for such Exhibition who has not been educated at St. Paul's School for the space of three years at the least.

The candidates for such Exhibition shall be examined in such manner as the Master and Fellows of Corpus Christi College shall from time to time direct, in order to ascertain their fitness to become Students of the College.

In default of any duly qualified candidate from St. Paul's School, the Exhibition then vacant shall be treated as open to general competition.

The Exhibitioner shall be subject to such regulations as to residence, instruction, and discipline as the Master and Fellows shall from time to time determine, and may be deprived of or suspended from his Exhibition by the Master and Fellows for any misconduct which shall, in their judgment, merit such deprivation or suspension.

The Exhibition shall be tenable until the person holding it shall be of standing to take the degree of Bachelor of Arts, or, if the Master and Fellows of Corpus Christi College think fit, until he is of standing to take the degree of Master of Arts, but no longer.

Given under our Common Seal, this First day of August, in the year of our Lord One thousand eight hundred and sixty.

L. S.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament, holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Pro- "vision for the good Government and Extension of the Uni- "versity of Cambridge, of the Colleges therein, and of the "College of King Henry the Sixth at Eton:" Do hereby, in execution of the powers vested in us by the said Act, make the following Statute for the future Government and Regulation of the College of Corpus Christi and of the Blessed Mary, in the University of Cambridge:

De suscipiendis Sacris Ordinibus.

Statuimus etiam quod octo ex Sociis Collegii prædicti teneantur ad sacros ordines suscipiendos intra tres annos post admissionem suam, sub pœna amissionis sodalitii; et, quamdiu sodalitium tenebit, quisque qui ad sacros ordines suscipiendos teneatur, Sacræ Theologiæ studio et aliis optimis studiis diligenter incumbat. Reliqui autem Socii non teneantur ullo tempore ad sacros ordines suscipiendos: quorum tamen si quis post annum ab admissione sua tertium finitum sacros ordines in se susceperit, is collationis ad beneficium cujus patronatus ad Collegium pertineat sibi vindicandæ jus nullum habeat.

Given under our Common Seal, this Fourth day of August, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of Statutes framed by the Cambridge University Commissioners, on the 4th of August 1860, under the 19 & 20 Vict. cap. 88, for the future Regulation of Mr. Baker's and other Scholarships and Exhibitions at St. John's College, in the said University of Cambridge.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament, holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Pro- "vision

" vision for the good Government and Extension of the Uni-
" versity of Cambridge, of the Colleges therein, and of the
" College of King Henry the Sixth at Eton:" Do hereby, in execution of the powers given to us by the said Act, make the following Statutes respecting the several Scholarships and Exhibitions at the College of Saint John the Evangelist, in the University of Cambridge, mentioned in the same, that is to say:—

1. Mr. Baker's Foundation.

In lieu of the Scholarships or Exhibitions in St. John's College founded under or in pursuance of the provisions of the last Will and Testament of George Baker, of Crooke, in the County of Durham, and of a Deed bearing date the 15th day of May 1710, executed for the purpose of giving effect to the testamentary directions of the said George Baker so far as the said Scholarships or Exhibitions were concerned, there shall be established at St. John's College so many Exhibitions as the funds from time to time applicable under the provisions of the Deed of the 15th of May 1710 shall suffice to maintain at the rate of thirty pounds per annum for each Exhibition.

Whenever there shall be any surplus of the funds so applicable (after payment of the Exhibitioners at the rate aforesaid) not amounting to the sum of thirty pounds per annum, such surplus shall be divided in equal shares amongst the existing Exhibitioners.

The Exhibitions shall be tenable for four years from the day of election, and no longer.

In the election to the said Exhibitions no preference shall be given to any candidate in respect of his being of the blood, affinity, or surname of the said George Baker, nor in respect of his place of birth, but all candidates who have been scholars at the Free School of the City of Durham by the space of one year at the least, shall retain the same preference as they now enjoy under the provisions of the said Deed of the 15th of May 1710.

The candidates for the said Exhibitions shall be subject to such examination as the Master and Senior Fellows of St. John's College shall think proper, in order to ascertain their fitness to be elected to such Exhibitions.

If, on the occurrence of a vacancy of any Exhibition on this foundation, no duly qualified candidate shall present himself from the said Free School of the City of Durham, or none such of sufficient merit to deserve, in the opinion of the Master and Senior Fellows of St. John's College, to be elected to

such Exhibition, the Exhibition then vacant shall be treated as open to general competition.

Every Exhibitioner shall be subject to such regulations as to residence, instruction, discipline, and attendance on Divine Worship, as the Master and Senior Fellows shall from time to time determine, and may be deprived of his Exhibition by the Master and Senior Fellows for any misconduct which shall in their judgment merit deprivation, but with liberty to appeal against such deprivation to the Visitor of the College.

It shall be lawful for the Master and Seniors, with the consent of the said Visitor and of the Governing Body of the said Free School of the City of Durham, to regulate from time to time the number and value of the above-mentioned Exhibitions.

2. Mr. Munsteven's Foundation.

In lieu of the Scholarships or Exhibitions in St. John's College, founded under or in pursuance of the provisions of the last Will and Testament of Edmund Munsteven of Paston, in the County of Northampton, dated the 9th of February 1635, there shall be established at St. John's College so many Exhibitions as the funds from time to time applicable under the provisions of the said Will shall suffice to maintain at the rate of thirty pounds per annum for each Exhibition.

Whenever there shall be any surplus of the funds so applicable (after payment of the Exhibitioners at the rate aforesaid) not amounting to the sum of thirty pounds per annum, such surplus shall be divided in equal shares amongst the existing Exhibitioners.

The Exhibitions shall be tenable for four years from the day of election, and no longer.

All candidates for these Exhibitions coming from the Cathedral School of Peterborough, or from the Free School at Oundle in Northamptonshire, shall retain the same preference as they now enjoy under the provisions of the said Will.

The candidates for the said Exhibitions shall be subject to such examination as the Master and Senior Fellows of St. John's College shall think proper, in order to ascertain their fitness to be elected to the said Exhibitions.

If on the occurrence of a vacancy of any Exhibition on this foundation, no duly qualified candidate shall present himself from either of the said schools, or none such of sufficient merit to deserve, in the opinion of the Master and Senior Fellows of St. John's College, to be elected to such Exhibition, the Exhibition

bition then vacant shall be treated as open to general competition.

Every Exhibitioner shall be subject to such regulations as to residence, instruction, discipline, and attendance on Divine Worship, as the Master and Senior Fellows shall from time to time determine, and may be deprived of his Exhibition by the Master and Senior Fellows for any misconduct which in their judgment shall merit deprivation, but with liberty to appeal against such deprivation to the Visitor of the College.

It shall be lawful for the Master and Senior Fellows, with the consent of the said Visitor, and of the Governing Bodies of the said schools of Peterborough and Oundle, to regulate from time to time the number and value of the above-mentioned Exhibitions.

3. Dr. Gwyn's Foundation.

From the date hereof there shall be no further election to any of the three Scholarships upon the foundation of Dr. John Gwyn in St. John's College.

In lieu of the said three Scholarships there shall from time to time be elected one Exhibitioner in the said College.

The said Exhibition shall be tenable for three years from the day of election, and no longer.

In the election to the said Exhibition, no preference shall be given to any candidate in respect of his place of birth, but all candidates who have been of the school of Bangor, or of the school of Ruthyn, in the county of Denbigh, shall retain the same preference as is provided by the Will of the said Dr. John Gwyn.

The candidates for the said Exhibition shall be subject to such examination as the Master and Senior Fellows of St. John's College shall think proper, in order to ascertain their fitness to be elected to the said Exhibition.

If on the occurrence of a vacancy of this Exhibition, no duly qualified candidate shall present himself from either of the said schools, or none such of sufficient merit to deserve, in the opinion of the Master and Senior Fellows of St. John's College, to be elected to the Exhibition, the Exhibition shall be treated as open to general competition; provided that in that case it be tenable for one year only.

Every Exhibitioner on this foundation shall be subject to such regulations as to residence, instruction, discipline, and attendance on Divine Worship, as the Master and Senior Fellows shall from time to time determine, and may be deprived

of his Exhibition by the Master and Senior Fellows for any misconduct which shall in their judgment merit deprivation, but with liberty to appeal against such deprivation to the Visitor of the College.

4. Dr. Newcome's Foundation.

In lieu of the two Exhibitions founded in St. John's College, under or in pursuance of the Will of Dr. John Newcome, formerly Master of the said College, there shall from time to time be elected one Exhibitioner, who shall be entitled to receive from the funds of the said College the yearly sum of forty pounds.

The said Exhibition shall be tenable for three years from the day of election and no longer.

In the election to the said Exhibition all candidates who have been admitted from the Free Grammar School of Grantham, in Lincolnshire, shall retain the same preference as is provided by the Will of the said Dr. John Newcome.

The candidates for the said Exhibition shall be subject to such examination as the Master and Senior Fellows of St. John's College shall think proper, in order to ascertain their fitness to be elected to the said Exhibition.

If on the occurrence of a vacancy of this Exhibition no duly qualified candidate shall present himself from the said school, or none such of sufficient merit to deserve, in the opinion of the Master and Senior Fellows of St. John's College, to be elected thereto, the Exhibition shall be treated as open to general competition; provided that in that case it be tenable for one year only.

Every Exhibitioner on this foundation shall be subject to such regulations as to residence, instruction, discipline, and attendance on Divine Worship, as the Master and Senior Fellows shall from time to time determine, and may be deprived of his Exhibition by the Master and Senior Fellows for any misconduct which shall in their judgment merit deprivation, but with liberty to appeal against such deprivation to the Visitor of the College.

5. Mr. Robins' Foundation.

In lieu of the two Exhibitions founded in St. John's College, under or in pursuance of the Will of Mr. Francis Robins, clerk of the parish of Sutton Valence, in the county of Kent, and formerly Senior Fellow of the said College, there shall from time to time be elected one Exhibitioner, who shall be entitled

entitled to receive from the funds of the said College the yearly sum of twenty pounds.

The said Exhibition shall be tenable for four years from the day of election and no longer.

In the election to the said Exhibition no preference shall be given to any candidate in respect of his name or kindred, or in respect of his place of birth, but all candidates who have been educated in the Grammar School of Sutton Valence aforesaid shall retain the same preference as is provided by the Will of the said Mr. Francis Robins.

The candidates for the said Exhibition shall be subject to such examination as the Master and Senior Fellows of St. John's College shall think proper, in order to ascertain their fitness to be elected to such Exhibition.

If on the occurrence of a vacancy of this Exhibition no duly qualified candidate shall present himself from the said school, or none such of sufficient merit to deserve, in the opinion of the Master and Senior Fellows of St. John's College, to be elected thereto, the Exhibition shall be treated as open to general competition; provided that in that case it be tenable for one year only.

Every Exhibitioner on this foundation shall be subject to such regulations as to residence, instruction, discipline, and attendance on Divine Worship, as the Master and Senior Fellows shall from time to time determine, and may be deprived of his Exhibition by the Master and Senior Fellows for any misconduct which shall in their judgment merit deprivation, but with liberty to appeal against such deprivation to the Visitor of the College.

Given under our Common Seal this Fourth day of August, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 4th of August 1860, under the 19 & 20 Vict. c. 88, for the Conversion of the Scholarship founded by Mr. MILLER at ST. PETER'S COLLEGE, in the said University of Cambridge, into an Exhibition at the same College.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament, holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Pro-" vision for the good Government and Extension of the " University of Cambridge, of the Colleges therein, and of " the College of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statute for the conversion of the Scholarship founded by Mr. Miller at St Peter's College, in the University of Cambridge, into an Exhibition at the same College:

The Scholarship founded by Mr. Thomas Miller, of Brampton, in the County of Huntingdon, shall on the occurrence of the next vacancy thereof be converted into an Exhibition at the same College, to be called the "Miller Exhibition," and the emoluments of the said Scholarship shall thenceforth be transferred and belong to the said Exhibition.

The Master and Fellows of St. Peter's College shall on occasion of each and every vacancy, elect to such Exhibition some person who has been educated at the Free Grammar School at Huntingdon, if any such person offer himself for election, who, in the judgment of the Master and Fellows, shall be duly qualified. But if no such person offer himself for election, then the Master and Fellows shall be at liberty to elect to the Exhibition for that turn, any person whatsoever, whom they shall deem to be duly qualified.

The Exhibition shall be subject to such rules and regulations as to the continuance and enjoyment thereof, as the Master and Fellows of St. Peter's College shall from time to time direct.

Given under our Common Seal, this Fourth day of August, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d and 24th of October 1860, under the 19 & 20 Vict. c. 88, for the Repeal of the previously existing Statutes, and for the Government of the existing BYE-FELLOWS of ST. PETER'S COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Pro-"vision for the good Government and Extension of the Uni-"versity of Cambridge, of the Colleges therein, and of the "College of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future regulation of the College of St. Peter, commonly called Peterhouse, in the University of Cambridge.

REPEAL OF PREVIOUSLY EXISTING STATUTES.

FROM and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of the College of St. Peter, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for the good Govern-"ment and Extension of the University of Cambridge, of the "Colleges therein, and of the College of King Henry the "Sixth at Eton," shall be of any force and effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College elected before the date of an Order of Her Majesty in Council, bearing date the Twenty-seventh day of August, in the year of our Lord One thousand eight hundred and sixty.

And save and except so much of the said former Statutes as relate to the powers and functions of the Visitor thereof, which shall be and remain in force as heretofore.

From and after the approbation of this Statute by Her Majesty in Council, all the former Statutes of the College shall stand and be repealed, except and subject as aforesaid.

Given under our Common Seal, this 23d day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College "of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future government and regulation of St. Peter's College in the University of Cambridge.

As to existing Bye-Fellows.

The three Statutes contained in the body of Statutes for St. Peter's College, numbered XVII., XX. and XXIV., and entitled respectively, "Conduct of the Fellows," "Vacation of Fellowships," and "Power of Removal of Fellows," which were confirmed by an Order of Her Majesty the Queen in Council, bearing date the Twenty-seventh day of August One thousand eight hundred and sixty, shall so far as the same relate to conduct and discipline, and the enforcement thereof, apply and extend to the Bye-Fellows of the College, elected before the date of the said Order in Council, in the same manner and to the same extent as to the Foundation Fellows of the College.

Given under our Common Seal this Twenty-fourth day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES and SUPPLEMENTAL STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 16th of May 1860, under the 19 & 20 Vict. c. 88, for the future Government and Regulation of EMMANUEL COLLEGE in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for "the good Government and Extension of the University of "Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the three following supplemental Statutes for the future regulation of Emmanuel College, in the University of Cambridge.

SUPPLEMENTAL STATUTES.

I.—Payment for University purposes.

[Objected to by College, and cancelled accordingly.]

II.—Preservation of Rights of the existing Master and Fellows.

THE emoluments, tenure of office, and other interests of a pecuniary nature of the present Master, and of all Fellows elected before the confirmation of these Statutes by Her Majesty in Council, shall be regulated by the previously existing Statutes: provided that if the Master or any such Fellow shall elect to be placed in these respects under the operation of the present Statutes, it shall be lawful for him to signify such election to the Master and Fellows by writing under his hand, and his rights in such respects shall be thenceforth governed by the present Statutes accordingly.

III.—As to bringing these Statutes into Operation.

WHEN and so soon as the interests to be regulated by the previously existing Statutes shall have expired or otherwise determined to such an extent as may in the judgment of the

Master and Fellows enable the distribution hereinbefore described to be partially carried into effect without prejudice to such of those interests as may not have expired or otherwise determined, the Master and Fellows shall from time to time, as circumstances will permit, bring into operation so much and such part or parts of the prescribed distribution as they shall deem most expedient.

Given under our Common Seal this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

Statutes of Emmanuel College.

Whereas Emmanuel College, in the University of Cambridge, was founded by Sir Walter Mildmay, in the reign of Queen Elizabeth, and in the year of our Lord One thousand five hundred and eighty-four, as a place of education for members of the Established Church, and more especially to train up a body of ministers to teach and preach and administer the sacraments in the Church, and has continued to be governed by a body of Statutes originally granted by the Founder, and revised, with the sanction of the Crown and the approbation of the Visitor of the College, in the year of our Lord One thousand eight hundred and forty-four.

And whereas certain of the provisions contained in the original Statutes have become obsolete or are unsuited to the circumstances of the present times, and it is expedient that a new code of Statutes should be drawn up with a view to carry out the intentions of the Founder in the way most suitable to the altered circumstances of the times: We, the Commissioners appointed for the purposes of an Act passed in the session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled "An Act to make further Provision for the good Government "and Extension of the University of Cambridge, of the Col- "leges therein, and of the College of King Henry the Sixth "at

"at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statutes for the future government and regulation of Emmanuel College:—

Cap. I.—De Magistri Authoritate.

Quoniam a capite justum est exordiri, a quo regi et administrari cætera membra decet, primum de Magistro statuamus, quem tanquam caput Sociis et Scholaribus omnibus esse volumus. Magistro itaque antedicti Collegii atque etiam cæteris omnibus illius successoribus (cuique pro tempore suo) authoritatem tribuimus in Socios et Scholares omnes ejusdem Collegii, eosdem gubernandi, regendi, puniendi, admonendi, et rem domesticam totius Collegii administrandi, juxta Ordinationes et Statuta præsentia quæ sequuntur inferius. Non licebit tamen Magistro, absque expresso consensu majoris partis Sociorum, querelam, placitum, aut aliam actionem quamcunque sub nominę Collegii attemptare per se, neque per alium quemlibet, neque terras, tenementa, decimas, oblationes, aut cæteras possessiones ejusdem Collegii, sive temporales sive spirituales jam collatas, aut in posterum conferendas, alienare, sive ad firmam dimittere; neque officium, feodum, aut pensionem aliquam de bonis, terris, aut tenementis Collegii prædicti cuiquam concedere, neque ecclesiarum earum quæ ad patronatum Collegii antedicti pertinent, præsentationes conferre; neque Sigillum commune Collegii scripto aut instrumento cuilibet apponere; neque negotium aliquod ex quo dedecus aut incommodum Collegio dicto oriri possit, aggredi, nec confirmare, aut terminare nisi ex majoris partis Magistri ipsius et Sociorum ejusdem Collegii assensu. Quod vero major pars ex Magistro et Sociis prædictis egerit sive in his prædictis sive in aliis quibuslibet (quod Ordinationibus et Statutis nostris non repugnet) ratum et gratum haberi volumus et statuimus.

Quoties vero contingit Magistrum et Socios in duas æquales partes dividi, tum semper Magistri suffragium (nunquam enim illi vocem negativam concedimus) pro duobus suffragiis computari volumus.

Si Magister et major pars Magistri et Sociorum præsentium dissentiant, res in decem aut pauciores dies (si Magistro visum est) proferatur, et Socii omnes convocentur; tunc post rem iterum consideratam, major pars Magistri et Sociorum præsentium, Magistro duo suffragia ferente si in duas æquas partes divisi sint, rem omnino dirimat.

Emolumenta quæ proveniunt ex concessionibus singulis in publicum Collegii usum conferri volumus, et nullo modo in privatos usus cedere; ita tamen, ut neminem in Balivum, Receptorem, aut Firmarium admittant, qui non fideijussores idoneos dederit Magistro et Sociis prædictis, pro Collegii in ea parte indemnitate, si ita iisdem videatur necessarium. Damus etiam Magistro prædicto potestatem, cum assensu Sociorum illorum qui in studentibus instituendis ex officio occupati sint aut majoris partis eorum, tempora studiorum, ac etiam animi remittendi Scholarium et Pensionariorum omnium pro sua prudentia moderandi.

Cap. II.—De Residentia Magistri.

Quando etiam capiti convenit, ut cæteris uniatur membris, volumus et statuimus quod nec Magister qui nunc est, nec futurorum aliquis in ullis alliis præterquam ipsius Collegii negotiis absit ab eodem ultra spatium unius mensis in quoque termino sine expresso consensu majoris partis Sociorum tum præsentium, neque ultra spatium quinque mensium in singulis annis sub pœna amissionis Magistratus sui ipso facto. Quo tempore nihil ei pro commeatu aut cæteris expensis allocabitur ex sumptibus dicti Collegii. Licebit ei tamen in urgentibus causis et negotiis necessariis ejusdem Collegii diutius abesse, prout necessitas postulabit, sed omnino ipsius conscientiam oneramus in Domino, ut suam absentiam non coloret, neve excuset ullomodo prætextu negotiorum ipsius Collegii, nisi ejusmodi fuerint quæ diutinam ipsius absentiam exposcant revera; nisi etiam ægrotatione aliqua ingenti aut violenta detentione forte impeditus fuerit quam legitime probaverit coram Procancellario Universitatis prædictæ, seu vices ejus gerente, ac duobus in Sacra Theologia Doctoribus residentibus, et altero eorum assentiente eidem Procancellario in causæ ipsius approbatione, si de absentia sua quæstionem ei a majori parte Sociorum moveri contigerit: vel nisi fuerit impeditus ab alia gravissima causa a majori parte Sociorum approbanda.

Cap. III.—De Camerarum Assignatione.

Magistro ipsi pro tempore existenti cameras assignamus, quæ ad usum Magistri ædificatæ sunt. Omnium vero camerarum mercedem in usum Collegii convertendam statuimus. Mercedis summam constituet Magister, assistentibus ei duobus maxime senioribus Sociis.

Cap.

Cap. IV.—De Computo reddendo.

Consentaneum est etiam, ut Socii omnes Collegii ipsius statum non ignorent; statuimus igitur, ut sit in Collegio unus ex Sociis qui officio Bursarii fungatur, a Magistro ipso nominandus, et per majorem partem Magistri ipsius et Sociorum eligendus; nisi contigerit ut major pars Sociorum Collegii Magistrum ipsum in locum Bursarii constituendum postulet. Liceat etiam majori parti Magistri ipsius et Sociorum stipendium Bursario assignare prout iis videatur. Qui quidem Bursarius, singulis annis ad duo tempora, semel intra mensem a festo Paschæ, atque iterum etiam intra mensem a festo Divi Michaelis Archangeli, in præsentia Magistri aut ejus Locumtenentis, Sociis etiam omnibus antea per hebdomadam admonitis et tunc præsentibus, aut saltem majori parte eorundem, computum reddat veracem et fidelem de cunctis ad officium et administrationem suam spectantibus, quid expenderit, quid receperit, et quid supersit recipiendum, quid Collegium debeat, et quid vicissim debeatur eidem. Balivos et Firmarios eodem tempore suos computos facere cogat; thesaurum universum, jocalia omnia, ac cætera munimenta ostendat Sociis illis omnibus, rursumque reponat, eis præsentibus, intra Thesaurarium in scriniis ad hoc deputatis; fieri quoque volumus per eundem singulis quibusque temporibus dictorum computorum indenturas duas statum ejusdem Collegii manifeste continentes, quarum alteram in communi cista reponi jubemus, alteram in Magistri ipsius custodia retineri. Et si forte Bursarius computum statutis temporibus non reddiderit, aut Magistro et Sociis in reddendo computo non satisfecerit, tum rem ad Procancellarium Universitatis seu vices ejus gerentem referri volumus, qui duobus ad se accitis in Sacra Theologia Doctoribus, aut ob eorum absentiam Baccalaureis in eadem senioribus, partem aberrantem juxta suam discretionem reformet. Licebit autem majori parti Magistri ipsius et Sociorum omnium, quandocunque illis videatur, Socium in Bursarium electum ab officio amovere, et Socium alium in ejus locum constituere.

Eligantur etiam duo ex Sociis in biennium ad minimum, qui vice Auditorum fungantur, quibus officium erit, ante computum prædicto modo reddendum, expensa et accepta relata inspicere; et si justa videantur, nomina sua in schedulis ita inspectis subscribere; quibus Magister et Socii summam pecuniæ huic labori parem et æquam assignent.

Cap. V.—De tuta Rerum Custodia.

Et quo tutius ac securius res ipsius Collegii custodiri queant, volumus et statuimus ut in Thesaurario cista quædam ampla sit, quæ communis cista appellabitur, una cum cistula quadam exigua ad Sigilii communis custodiam deputata, cujus cistulæ clavem Magister ipse geret Sintque aliæ cistæ in eodem Thesaurario aut in alio loco idoneo pro conservandis jocalibus cæterisque rebus quæ ad necessarios usus spectabunt; ea vero quæ in quotidiano usu sunt, Magister ipse curet loco aliquo tuto custodiri. Sint etiam in eodem Thesaurario scrinia quædam in quibus chartas, literas patentes, confirmationes, evidentias, indenturas, obligationes, et cætera munimenta ad ipsum Collegium spectantia, inventarium quoque rerum omnium, atque hæc et originalia Statuta recondi volumus. Volumus igitur et statuimus quod istarum rerum (quas supra enumeravimus) nihil cuiquam mutuetur. Et si quando ad usum Collegii necessarium efferendæ sint, prius inde schedula conficiatur manu ipsius recipientis, quæ intra cistam communem remanere debet, donec eædem ipsæ res rursum integre restituantur: quod proximo die fieri volumus post finitum earum necessarium usum. Singulis etiam noctibus januas omnes et ostia Collegii Magister seu locum ipsius tenens obserari curabit.

Cap. VI.—De Magistri Vicario.

Cum autem Magistro permiserimus aliquamdiu a prædicto Collegio abesse, æquum est ut de administratore aliquo in ipsius absentia provideatur: Volumus igitur et statuimus ut sive absente Magistro, seu Magistratu ipsius vacante, Sociorum aliquis semper administret: in absentia quidem ille quem Magister assignare voluerit, in vacatione vero Socius ipse qui juxta admissionem senior fuerit. Vicariam authoritatem uterque obtineat tempore suo, et tam in Sociis congregandis quam in consiliis tractandis ob utilitatem et honorem ipsius Collegii præsideat, et primus sit, eique tanquam Magistro pareatur: Proviso tamen quod neuter eorum literas ullas communi Sigillo consignatas cuiquam tradet præter eas quæ ad Magistri electi præsentationem attinent, nec, Magistratu vacante, fiat electio vel Sociorum vel Discipulorum.

Cap. VII.—De Qualitate novi Magistri eligendi.

Nemo in Magistrum sive Custodem Collegii eligatur, nisi quem Socii probabiliter speraverint fide, industria, et studio diligenti

diligenti rem domesticam Collegii administraturum; hæc Statuta observaturum; bona, terras, possessiones, libertates, privilegia, et jus unumquodque Collegii pro suis viribus tuaturum; quique sit ætatis ad minimum triginta annorum, in Sacris Ordinibus constitutus, et saltem in Artibus Magister ex Universitate Cantabrigiæ; ac talis denique sit, qui dignus videatur gubernare et regere Collegium, in quo fovetur Dei Cultus, morum probitas, bonarum literarum et scientiæ studium, et iisdem imbuitur juventus.

Teneatur autem Magister ita electus ad gradum Professoris Sacræ Theologiæ, statim post admissionem suam, aut quamprimum ei per Statuta Academiæ licuerit, progredi.

Cap. VIII.—De Modo et Forma eligendi Magistrum.

Porro ne hoc corpus principali suo membro aliquando careat diutius quam par est, electionem Magistri fieri ad formam sequentem ordinamus. Primum senior Socius juxta admissionem inter eos qui tum domi præsentes erunt illis una convocatis, rem aperiat, et vacationem officii Magistri (quamprimum illud cognoverit) absque omni mora notam faciat, atque de die et hora electionis futuræ palam ac diligenter admoneat. Quod si qui Sociorum absentes fuerint, illorum adventus per quatuordecim tantum dies immediate sequentes expectabitur. Atque ut illis absentibus hæc Magistri vacatio facilius innotescat, schedula de die et hora futuræ electionis per eundem seniorem Socium ostio Sacelli per hos quatuordecim dies continuo affigetur, et per eundem quoad possit absentes de futura electione admoneri volumus.

Die igitur quindecimo post agnitam vacationem mane hora octava ejusdem diei Socii congregabuntur in Sacello prædicto, ubi primum preces ordinariæ offerentur Deo. His autem finitis, prædictus Senior (cæteris omnibus præter Socios prius exclusis) palam leget Statuta nostra "De qualitate Magistri "eligendi," quibus lectis Socius prædictus associet sibi duos alios Socios maxime seniores præsentium juxta admissionem, qui acceptis singulorum suffragiis omnia fideliter tractabunt quæ ad perficiendam electionem pertinent, quæ ut fidelius faciant illi primum professionem facient in hunc modum: "Ego N. T. polliceor me in hac electione Statuta nuper lecta "fideliter et integre observasse et observaturum, et illum in "Magistrum electurum quem his Statutis nuper lectis signi-"ficari et apertius describi mea conscientia judicabit, omni "illegitima affectione, metu, odio, amore, et similibus "sepositis." Quam professionem reliqui omnes Socii præstabunt, unus post alterum servato ordine senioritatis suæ.

Quam etiam professionis formam et nullam aliam ante Magistri electionem semper observari volumus. Præstita hac professione Senior antedictus coram duobus aliis suffragium suum propria manu scribet; postea alii duo sua suffragia similiter scribent; postremo omnes alii Socii præsentes sua suffragia coram prædictis tribus Senioribus quiete deponent, et scribent propriis ipsorum manibus. Omnes autem hac aut consimili forma scribent: "Ego M. T. eligo Magistrum hujus "Collegii N. N.," etc. Quæ omnia suffragia ita conscripta præfatus Senior vel alius quispiam illorum trium aperte et distincte legat coram omnibus Sociis præsentibus, et in quem major pars præsentium consenserit, ille pro electo habeatur absque contradictione cujuscunque. Quam electionem dictus Senior, antequam recedat, sub hac forma pronuntiare tenebitur: "Ego N. T. senior hujus Collegii Socius nomine meo, "et nomine omnium Sociorum, seu majoris partis eorundem, "electum vobis pronuntio N. N. in Magistrum hujus Collegii." Quod si nec primo nec secundo scrutinio major pars Sociorum in unam personam consentire queat, tunc compromittant omnes et singuli Socii præsentes sua suffragia quinque Sociis senioribus omnium præsentium, et in quem major pars ipsorum Seniorum consenserit, pro electo habeatur absque hæsitatione et contradictione quacunque. Quam electionem præfatus Senior, aut (illo in Magistrum electo) qui senioritate proximus est teneatur pronuntiare, et personam sic electam admittere (si in oppido fuerit), sin minus quamprimum venire poterit, cujus adventum dictus Senior omni diligentia procurabit. Electus autem Magister hanc professionem præstabit quæ sequitur: "Ego M. T. profiteor me veram Christi "religionem, secundum fidem Ecclesiæ Anglicanæ ex animo "complexurum, Scripturæ authoritatem vel optimorum ho-"minum judiciis præpositurum; cætera quæ ex verbo Dei "nulla ratione probari possunt pro humanis habiturum; "Authoritatem Regiam in hominibus ejus dominationis sum-"mam, et externorum Episcoporum et principum et potes-"tatum quarumcunque jurisdictioni minime subjectam æsti-"maturum; opiniones verbo Dei contrarias, omnesque hæreses "omni diligentia refutaturum, denique vera consuetis, scripta "non scriptis in causa religionis semper antehabiturum. "Secundo fideliter promitto me Collegium hoc cujus nunc "sum electus Magister, omni cura et diligentia administra-"turum omniaque illius bona, terras, tenementa, posses-"siones, reditus, libertates, jura, privilegia, cæterasque res "universas tam mobiles quam immobiles integre conserva-"turum; Statuta omnia et Ordinationes hujus Collegii quæ "ad Dei gloriam et ad Collegii decus ac emolumentum

"spectare

" spectare scivero (quantum in me est) inviolate observa-
" turum, et ab aliis observari curaturum omni personarum
" acceptione posthabita; neque dispensationem aliquam in
" gratiam et favorem cujusquam adversus eadem Statuta aut
" eorum aliquod impetrabo, nec ab aliis curabo impetrari, nec
" impetratam acceptabo ullo modo. Hæc omnia in me
" recipio, et ita fidem do." His autem peractis volumus, et statuimus ut prænominatus senior Socius (cui tempore vacationis omnium rerum administratio et custodia concedebatur) vel, illo electo, Socius senior proximus, statim post hanc professionem Magistro nuper electo verum et integrum præbeat computum de rebus Collegii universis per se custoditis et administratis. Thesaurum universum, librum Statutorum, claves cistarum, quæ id illius officium pertinent, omnia ornamenta, scriptaque universa et munimenta quæcunque ad dictum Collegium pertinentia, illi aperiat, ac tradat juxta tenorem nostrorum Statutorum custodienda; idque in præsentia omnium Sociorum domi præsentium de quibus universis Magister ipse intra unum mensem conficiendum curabit inventarium quod a Sociis omnibus lectum et approbatum intra Collegii Thesaurarium recondetur.

Cap. IX.—De subsequentibus Electionem.

Electo et pronuntiato novo Magistro, mox Socii duo seniores (cæteris etiam omnibus per eosdem convocatis) electionem Magistri prædicti Procancellario Universitatis seu vices ipsius gerenti significabunt.

Cap. X.—De Vice-Magistro.

Si Magister ob diutinam vel mentis vel corporis debilitatem vel aliam consimilem causam ad officia sua obeunda desperate inhabilis fiat, tunc, petentibus aut Sociis in hanc rem convocatis aut Magistro ipso, Procancellarius Universitatis, accitis ad se duobus in Theologia Doctoribus, aut ob eorum absentiam Baccalaureis in eadem senioribus, post rem investigatam et cum assensu alterius Assessorum suorum, nominabit aliquem ex Sociis qui Magistri locum occupet, quamdiu Magister ipse inhabilis sit, et recipiat tantam partem emolumentorum Magistri quantam Procancellarius cum assensu supradicto assignet: proviso tamen quod pars ita assignata nunquam tertiam excedat; proviso etiam quod Magistro ipsi ædes primariæ reserventur.

Socius qui in Collegio adest senior, petentibus tribus aut pluribus cæterorum Sociorum, teneatur convocare Socios tum præsentes tum absentes ad hanc rem considerandam.

Socio per Procancellarium ita nominato titulus erit Vice-Magistro: munera omnia et officia et auctoritatem Magistri exercebit, stipendium assignatum recipiet, et Statuta omnia ad Magistrum spectantia observare tenebitur, donec Magister ipse vel in locum suum redeat vel Magistratum omnino relinquat.

Proviso semper quod si Magister rursus fiat habilis et officii capax, Procancellarius, cum assensu supradicto, re probata, Magistrum ita habilem factum in officium suum et locum et emolumenta integra reddet, et Vice-Magister locum inter Socios suum rursus occupabit.

Proviso etiam quod si Vice-Magister aut moriatur, aut officium suum resignet, aut Socius esse quoquo modo desinat, aut inhabilis fiat, Procancellarius iterum eodem modo et iisdem petentibus alterum ex Sociis in eundem locum constituet.

Cap. XI.—De Magistri, si res exigat, Amotione.

Si Magister a fide et communione Ecclesiæ Anglicanæ, uti legibus regni stabilita extat, aperte secesserit, tunc Procancellarius, accitis ad se duobus in Theologia Doctoribus, aut ob eorum absentiam Baccalaureis in eadem senioribus, re quamprimum commode possit investigata ac demonstrata, cum assensu alterius Assessorum suorum, illum a Magistratu absque mora amoveat.

Si porro Magister cujuscunque criminis coram Judice legitime damnatus fuerit, licebit Procancellario, si ei videatur, rem investigare; et, si ita e Collegio esse censeat, cum assensu supradicto, Magistrum omnino amovere.

Si major pars Sociorum coram Procancellario Magistrum accuset de turpi conversatione, aut malegesta administratione, aut gravi negligentia, unde Magister esse indignus factus sit, tunc Procancellarius, accitis ad se Assessoribus supradictis, quamprimum commode possit, accusationem audiet, et, re demonstrata, licebit ei, si ita e Collegio esse censeat, cum assensu alterius Assessorum suorum, Magistrum amovere.

Cap. XII.—De Decano sive Catechista.

De Magistro hactenus statutum est, cui ne nimio onere prematur, Decanum sive Catechistam supponimus, qui decimo die Octobris, vel (si ille dies Dominicus sit) undecimo, per Magistrum sive ejus Locum-tenentem, et majorem partem Sociorum tum præsentium, ex iisdem Sociis eligatur, cujus officium erit omnia Sacello ad Dei Cultum pertinentia, cum consensu, Magistri et majoris partis Sociorum, juxtaque ordinationes et cæremonias Ecclesiæ Anglicanæ ministrare, Sociorum

rum et Discipulorum in Divinis officiis celebrandis, præcipue vero in diebus Dominicis, negligentias annotare. Reliquos etiam Socios volumus ut Decano in officio suo opem ferant, quoties opus erit, judicio Magistri et majoris partis Sociorum.

Cap. XIII.—De Senescallo.

Post Decanum proximo loco est Senescallus, qui a Magistro, Sociis, Scholaribus, et Pensionariis tantum pecuniæ singulis anni quartis accipiat, quantum in sumptum communarum cujusque eorum sufficiat: id vero Magister habita ratione ejus summæ quæ vulgariter soleat sufficere moderabitur; ex ea pecunia procurabit Senescallus victualia quæ erunt necessaria comparari. Quod erit expositum, et ad quam summam communæ prædictæ ascendent, libello per se vel per mancipem describet rationemque ad duo tempora computandi consuetudinaria Magistro vel ejus Locum-tenenti et Sociis præsentibus idem Senescallus aut manceps fideliter reddet. Nemo Sociorum tum in Universitate præsentium absit ab hoc computo absque Magistri aut ejus Locum-tenentis licentia.

Cap. XIV.—De Sociorum Qualitate.

Socii eligantur ex iis qui vel sint vel fuerint ex Collegio aut ex Universitate Cantabrigiæ, quique gradum Baccalaureatus in Artibus aut in aliqua facultate intra Universitatem approbata adepti fuerint; semper tamen ex probioribus et doctioribus, quique digni esse videantur societate Collegii, in quo fovetur Dei Cultus, morum probitas, bonarum literarum et scientiæ studium, et iisdem imbuitur juventus.

In Sociis eligendis nullus Comitatus in posterum præponatur, nec ratio habeatur numeri Sociorum ex ullo Comitatu uno in tempore existentium; nec quisquam præferatur ob Comitatum vel locum in quo natus fuerit, vel ob quamcunque consimilem causam.

Nemo in Socium eligi possit qui uxorem duxerit, exceptis iis quibus in Capite XX. posterius providetur.

Cap. XV.—De Electione Sociorum.

Quoties vacet locus inter Socios, electio fiat quotannis intra triginta dies numerandos vel a proxime sequenti die inaugurationis Baccalaureorum in Artibus, vel ab alio die priore per Magistrum et Socios assignando.

Vacare autem locum Socii ultra spatium unius anni nullo modo volumus, nisi propter gravem aliquam causam Magistro et majori parti Sociorum videbitur electionem in annum proximum differre. Socium autem in locum vacantem intra spatium duorum annorum omnino eligi volumus.

Die antedicto vel intra biduum Magister assignet diem quemlibet, modo ne sit ante quartum vel post decimum octavum diem proxime sequentem, quo habeatur electio Socii vel Sociorum.

De moribus vero et aptitudine et animi dotibus futurorum Sociorum Magister et Socii inquirent identidem quocunque modo iis videatur; et, quoties fiat electio, se obligari sentiant ad illum eligendum, quem in Capite XIV. apertius describi et optimum esse ad Collegii commodum et honorem promovendum conscientia sua judicaverit.

Die electionis Magister (qui semper adesse electionibus, nisi ob urgentes causas, tenebitur) et Socii conveniant, hora et loco per Magistrum assignatis; in quorum præsentia legetur Statutum "De Qualitate Sociorum;" quo facto, Magister et unusquisque Sociorum præsentium hanc professionem præstabunt: "Ego M. N. polliceor me in Socium hujus Col-
" legii electurum illum virum, quem Statutum antelectum
" significare et apertius describere mea conscientia judicabit,
" et optimum esse ad Collegii commodum et honorem pro-
" movendum. Ita bona fide polliceor et ita do fidem."

Quo facto unusquisque Sociorum præsentium suffragium suum Magistro feret, qui suffragia tum suum tum cæterorum aperte recitabit, et illum vel illos in Socium vel Socios pronuntiabit, in quem vel quos major pars suffragiorum totius numeri ex Magistro et Sociis tunc temporis de Collegio actualiter existentibus consenserit.

Si autem nequeat major pars totius numeri antedicti in unum aliquem consentire, tunc ille, in quem major pars Magistri et Sociorum tum præsentium consenserit, pro electo habeatur: Proviso quod si suffragia Magistri et Sociorum tunc præsentium in duas partes æqualiter dividantur, tunc ille pro electo habeatur in quem media pars præsentium incluso Magistro consenserit.

Si autem nequeat major pars Magistri et Sociorum præsentium vel media pars incluso Magistro in unum aliquem consentire, tunc ille pro electo habeatur in quem major pars Magistri et quatuor Sociorum juxta admissionem seniorum inter illos qui tunc præsentes sint, consenserit.

Electus in Socium admittatur quamprimum commode fieri poterit. Priusquam autem admittatur, præsentetur coram Societate

Societate et professionem præstet in hunc modum: "Ego N. T. "profiteor me veram Christi religionem secundum fidem "Ecclesiæ Anglicanæ ex animo amplexurum, et promitto me "veraciter atque integre observaturum Statuta omnia et sin- "gula hujus Collegii per Gaulterum Mildmaium fundati, et "curabo quantum in me fuerit, a consociis meis idem fieri. "Magistro sive ejus Locum-tenenti in omnibus parebo quæ- "cunque legitime imperaverit, consilia ejusdem Collegii "secreta (quoad juste licuerit) nemini pandam; nihil in quo "eidem Collegio commodi aut honoris accessio aliqua fieri "possit, impediam, sed magis pro meis viribus procurabo; "nullam ullo tempore adversus aliquod Statutorum hujus "Collegii, sive adversus hanc professionem meam, dispensa- "tionem in gratiam et favorem cujusquam impetrabo, nec "curabo impetrari, nec ab aliis impetratam ullo modo accep- "tabo. Hæc omnia in me recipio, quatenus Statutis regni "editis aut edendis non repugnent, et ita do fidem."

Quibus peractis, Magister electum vel electos hac forma in Societatem admittet: "Ego M. N., Magister hujus Collegii, "admitto te in Socium ejusdem in nomine Patris et Filii et "Spiritus Sancti. Amen."

Sociis eodem die electis assignetur in Collegio senioritas juxta gradus Academicos.

Cap. XVI.—De Cultu Dei.

[Objected to by College, and cancelled accordingly.]

Chap. XVII.—De Conditionibus Societatis retinendæ.

Socii omnes ad gradum Magisterii in Artibus sive ad alium consimilem gradum quamprimum per publica Academiæ Statuta possint, licebitve, se curent promoveri sub pœna amissionis Societatis suæ, nisi ægrotatione, violenta detentione, aut aliqua alia causa a Magistro et majori parte Sociorum approbanda impediantur.

Ex toto autem Sociorum numero quatuor ad minimum sint semper in Sacris Ordinibus constituti. Quod si vacante Socii loco, contigerit ut tunc temporis non sint in Collegio quatuor Socii in Sacris Ordinibus constituti, eligatur in locum vacantem Presbyter vel Diaconus, aut electus intra unius anni spatium se Diaconum fieri curet, alioqui e Collegio recedat et pro non Socio habeatur; nisi fuerit aliquis e senioribus Sociis qui Sacros Ordines sponte suscipere velit.

Singuli autem Socii, nisi in Sacris Ordinibus sint constituti intra septem annos a tempore admissionis suæ, post decem annos ab eodem tempore completos Socii esse desinent; exceptis tamen iis quibus per harum aliquam quæ sequuntur exceptionum Societatem diutius retinere liceat.

Si quis Socius post decem annos a tempore admissionis suæ completos locum Professoris in Academia obtineat (cujus annuus valor quingentas libras pecuniæ communibus annis non excedat), licebit ei, quamdiu locum illum aut consimilem alium in Universitate locum obtineat, Societatem suam retinere etiamsi in Sacris Ordinibus non sit constitutus.

Si quis Socius post decem annos a tempore admissionis suæ completos Tutorum Adjutoris aut Bursarii in Collegio suo locum obtineat, et per tres annos proxime præcedentes obtinuerit, licebit ei Societatem suam retinere, quamdiu locum illum aut consimilem alium in Collegio obtineat, etiamsi in Sacris Ordinibus non sit constitutus.

Si quis Socius per spatium integrum quindecim annorum officio in Collegio suo vel Tutorum Adjutoris vel Bursarii functus sit, licebit ei Societatem suam retinere, etiamsi officio non amplius fungatur, neque sit in Sacris Ordinibus constitutus.

Proviso quod non sint ultra duos Socios eodem tempore in Collegio qui virtute alicujus harum exceptionum Societatem suam retineant.

Cap. XVIII.—De Amotione Sociorum.

Si quis Socius a fide et communione Ecclesiæ Anglicanæ, uti legibus regni stabilita extat, aperte secesserit, Magister, convocatis ad se Sociis, rem investigabit, et, si demonstretur, cum assensu majoris partis illorum, illum a Societate amovebit.

Si quis Socius cujuscunque criminis coram Judice legitime damnatus fuerit, Magister, convocatis ad se Sociis, rem audiet, et, cum assensu majoris partis Sociorum, Socium sic damnatum, e Societate extrudere poterit.

Si quis Socius de turpi conversatione accusetur, unde Socius esse Collegii indignus factus sit; au si quis disciplinam Collegii ullo modo pertinaciter turbaverit, vel vehementer negligens fuerit in his agendis ad quæ per hæc Statuta obligatur, Magister, ad se convocatis Sociis, et, cum assensu majoris partis Sociorum, Socium sic aberrantem vel admonebit vel omnino amovebit, prout rei necessitas postulabit.

Proviso

Proviso tamen quod Socio vel Sociis, hoc modo amotis, semper sit jus provocandi ad Procancellarium Universitatis.

Proviso quod neuter Sociorum Magistro ita assidentium sit Socius ille, de quo res agitur.

Cap. XIX.—De Senioritate inter Socios observanda.

Inter Socios, exceptis iis qui sub Capite proxime sequente electi sint, seniores secundum admissionem maxime, cæteris paribus, in ecclesiarum et beneficiorum collationibus, atque in camerarum assignationibus, præferendi sunt.

Cap. XX.—De Electione Sociorum e Professoribus, aut ex aliis ob Literas vel Scientiam insignibus.

Licebit Magistro et Sociis in hanc rem convocatis, et consentientibus tot suffragiis ad minimum quot numerum trium partium Magistri et Sociorum omnium tunc temporis existentium excedant (quorum valeat duo Magistri suffragium), in Socium eligere aliquem intra Universitatem Professorem, etiamsi uxorem duxerit, qui nec beneficium in Ecclesia extra Universitatem habeat nec Magister sit nec Socius alius Collegii: qui Professor sic Socius electus retinebit Societatem quamdiu intra Universitatem Professor sit, sed non diutius.

Licebit etiam iisdem in Socium eligere aliquem virum ob literas vel scientiam insignem, etiamsi uxorem duxerit, qui nec beneficium in Ecclesia extra Universitatem habeat nec Magister sit nec Socius alius Collegii. Sed Socius sic electus Societatem amittet si beneficium aliquod in Ecclesia extra Universitatem adipiscatur.

Nullus Socius, sub hoc Statuto electus, jure vindicabit præsentari ad Ecclesiam quandam, cujus patronatus ad Collegium pertineat; nec, si uxorem duxerit, cameras intra Collegium sibi assignari.

Proviso semper quod numerus Sociorum sub hoc Statuto electorum, nunquam excedat sextam partem totius numeri Sociorum.

Cap. XXI.—Quantum aliunde eis recipere liceat.

Si quis Sociorum substantiam annuam assecutus fuerit, unde possit commode sustentari, non est justum ut ille stipendia pauperibus et egentibus deputata suscipiat; idcirco volumus et statuimus quod si quispiam Sociorum assecutus fuerit patrimonium, liberam capellam, pensionem, seu beneficium

cujuscunque generis, quod valorem annuum ter centum librarum excedat, tunc post alicujus eorundem pacificam possessionem, desinat ipso facto pro Socio haberi.

Cap. XXII.—De prandendi et cænandi loco.

Et quoniam eos omnes in unitatem quandam integrari cupimus, ut sint tanquam corpus unum sub Magistro totius Collegii capite; idcirco omnes Socios, Scholares, et Pensionarios Collegii prædicti in publica ejus aula prandere et cœnare volumus, nec quenquam eorum seorsim in cubiculis vel aliis locis intra Collegium prandium vel cœnam habere permittimus nisi ex causa rationabili Magistri seu ejus Locum-tenentis judicio approbanda. Et quanquam alibi statuerimus absentem Socium neminem communas suas habiturum, volumus tamen si pestis aliqua aut infectio ulla contagiosa intra Collegium aut parochiam in qua dictum Collegium situatur orta fuerit, sive alibi intra Universitatem Cantabrigiæ adeo ut magnus et insignis Scholarium numerus illinc ob eandem contagionem egressus fuerit, tunc Magistro et Sociis licebit in aliquem alium locum se conferre, ubi commodius pro eis provideri possit, juxta impensas quas iidem domi fecissent. Volumus etiam, quod si quis eorum ægrotet, aut credibiliter de pestis infectione suspectus sit ut commode inter sanos versari nequiverit, idque Magistro constiterit et majori parti Sociorum, tunc ex eorum concessione locum aliquem idoneum sibi petet ubi prandere possit, et emolumenta prædicta suscipere, pro stipendio videlicet communis et vestitura, ac si præsens esset intra Collegium.

Cap. XXIII.—De Sociorum Residentia.

Sociorum alicui abesse permittatur a Collegio, si legitimam causam Magistro approbandam absentiæ suæ rogatus reddat; ita tamen ut semper reservetur Magistro auctoritas eundem revocandi, quandocunque ipsi ita e Collegio visum fuerit.

Nemini autem eorum, qui ullum munus in Collegio gerat, abesse permittatur ullo tempore, quo absentia ejus, judicio Magistri vel majoris partis Sociorum omnium, vel incommodum vel dedecus manifestum sit Collegio allatura.

Neque quisquam eorum electus ad officium aliquod Collegii eodem fungi recuset, nisi legitime impeditus fuerit, vel veniam Magistri et Sociorum prius impetraverit.

Si quis Sociorum ita revocatus, ad tempus definitum non redierit, neque causam absentiæ a Magistro et majori parte Sociorum

Sociorum omnium approbandam significaverit, tunc illis potestatem concedimus eum mulctare ad summam annui stipendii aut talis partis ejusdem qualis iis justa esse videbitur.

Si tamen quisquam Sociorum absentium per Magistrum revocatus contumaciter recusaverit redire, aut electus ad aliquod Collegii munus eodem fungi negaverit, aut officiorum aliquo prædictorum fungens se absentare perstiterit, per Magistrum vel majorem partem Sociorum omnium revocatus, is omne jus et emolumentum Societatis illico amittet in perpetuum.

Proviso semper quod Socio sic amoto sit jus provocandi ad Procancellarium Universitatis.

Cap. XXIV.—De Tutoribus.

Tutores in Collegio sint, unus vel plures, ex Sociis ejusdem per Magistrum ipsum constituendi; quorum officium erit Discipulorum et Pensionariorum omnium studia promovere; eorum moribus invigilare et religione sincera et vera Dei cognitione imbuere, impensasque diligenter conspicere et moderari; eosdem, si res exigat, leniter corrigere, et generaliter iis in loco parentum esse.

Speciatim vero, in unoquoque termino Academico, diebus et horis et super libris per Magistrum et illos Socios qui in Discipulorum eruditione operam navant assignandis, Discipulos et Pensionarios in literis et scientia diligenter instituant, et ad examina Academica subeunda paratiores reddant. Si tamen aliquando Tutores præ nimia occupatione omnes Discipulos et Pensionarios se non satis bene instruere et curare posse repererint, liceat Magistro unum vel plures viros nominare, qui in his agendis opem illis ferant.

Tutorum etiam unus ad minimum spondebit pro omnibus Discipulis et Pensionariis, et præstabit omnes pecunias quas dicti Discipuli et Pensionarii Collegio debeant, justo tempore persolvendas.

In horum omnium laborum et onerum mercedem Discipuli et Pensionarii tantas pecuniæ summas persolvant, quantæ Universitatis more usitatæ fuerint aut per Magistrum et Socios præscriptæ.

Magistro licebit Tutorem vel aliquem Tutoribus opem ferentem ab officio amovere, si ob causam justam et idoneam ita e Collegio esse censeat.

Proviso tamen quod Socio ab officio Tutoris amoto sit jus provocandi ad Procancellarium Universitatis.

Cap. XXV.—De Discipulis.

Discipuli eligantur ex illis juvenibus, qui probiores fuerint et aptiores, atque egregii magis, quique sint probatæ indolis ac bonæ spei, nec ullo gradu in Universitate Cantabrigiæ insigniti, nec in Sacris Ordinibus constituti, quique in literis et scientia bene profecerint; qui etiam fidem erga Regiam Majestatem Angliæ profiteantur.

In Discipulis eligendis nullus Comitatus in posterum præponatur, nec ratio habeatur numeri Discipulorum ex ullo Comitatu uno in tempore existentium, nec quisquam præferatur ob Comitatum vel locum in quo natus fuerit, vel ob Scholam in qua institutus, vel ob quamcunque consimilem causam.

Electio etiam fiat Discipulorum semel quotannis ad minimum, vel sæpius si Magistro et Sociis visum fuerit; et, post examinationem habitam, eligantur Discipuli per Magistrum et Socios eodem modo quo in Capite "De Sociorum Elec-" tione" præscriptum est, verbis quæ necessario mutanda sunt mutatis.

Electus in Discipulum admittatur more consueto, quamprimum fieri commode poterit.

Insuper volumus ut Scholares Discipuli gradus Scholasticos quamprimum tempus legitimum advenerit assequentur. Neminem autem diutius intra Collegium dictum pro Scholari Discipulo haberi volumus postquam illi semel per suos annos gradum Baccalaurei in Artibus aut alium consimilem gradum susce-pisse licuerit. Proviso tamen quod si quis Discipulorum intra Collegium diutius commorari voluerit, et dignus visus fuerit, ei retinere locum suum inter Discipulos Magister et Socii (si ita visum fuerit) permittant usque ad justum tempus progrediendi ad gradum Magisterii in Artibus, sed non diutius. Scholarium Discipulorum residentiæ moderationem Magistro et majori parti Sociorum permittimus.

Cap. XXVI.—De Professione Scholarium Discipulorum.

Scholarium Discipulorum unusquisque mox post electionem suam, et antequam alicujus emolumenti intra dictum Collegium particeps admittatur, professionem præstabit in præsentia Magistri et majoris partis Sociorum in hac forma: "Ego N. N. polliceor quod Statuta omnia et singula hujus "Collegii per Gualterum Mildmaium fundati, veraciter et "integre observabo, quoad in me fuerit, et quatenus meam "personam concernunt; et ab aliis itidem fieri enitar. Ma-

"gistro

" gistro sive ejus Locum-tenenti in cunctis parebo quæcunque
" legitime præceperit. Consilia Collegii (si quæ audivero non
" efferenda) secreta tenebo. Sociis omnibus et singulis reve-
" rentiam justam et honorem exhibebo. Nihil denique quod
" in dedecus, aut in incommodum Magistro sive Sociorum
" alicui, aut Collegio ipsi verti posse credidero, conabor, sed
" neque conantibus ipse ullo modo consentiam, quoad vixero.
" Hæc omnia in me recipio et polliceor."

Cap. XXVII.—De Disciplina Collegii.

Scholares atque alii omnes qui in statu pupillari sint ad debitam reverentiam et obedientiam erga Magistrum et cæteros Officiarios Collegii exhibendam teneantur; quiete et decore se gerant; Statuta omnia atque Ordinationes a Magistro et Sociis de tempore in tempus ad Collegium regendum faciendas observent. Si quis eorum Statuta vel Ordinationes prædictas observare neglexerit, aut culpam aliquam contra disciplinam Collegii et bonos mores in se admiserit, per Magistrum, vel ejus vicem gerentem aut Decanum eorum vice fungentem, puniatur secundum arbitrium eorum. Proviso quod nemo a Collegio aut in tempus aut penitus amoveatur, neque Scholaris emolumentis suis privetur, nisi a Magistro et Sociis in hoc convocatis.

Cap. XXVIII.—De Mancipe, Coquo, aliisque Famulis et quodam Magistri Famulo.

Postremo quosdam intra Collegium dictum advertimus discipulis ipsis inferiores, famulos videlicet et mercenarios, quos universo corpori pedum loco habendos esse judicamus. Mancipem, coquum, aliosque famulos esse volumus qui omnes honestæ et bonæ conversationis sint, imprimis curandum est. Neminem autem horum conduci volumus sine consensu Magistri et majoris partis Sociorum. Et quendam præter hos Magistro famulum permittimus, ad sua negotia peculiaria, a Magistro ipso conducendum.

Cap. XXIX.—De Beneficiorum Collatione.

Quoties contigerit beneficium aliquod vacare, cujus præsentatio ad Collegium jure patronatus pertineat, Magister et Socii, intra trium mensium spatium a vacatione prædicta aliquem ex suo numero, si ita fieri poterit, eligant quem maxime statuent esse idoneum, quique nullum habeat aliud beneficium ecclesiasticum, cui animarum curam aut residendi

necessitatem leges, statuta aut consuetudines hujus regni vel beneficii ipsius fundatio, vel locale statutum aut consuetudo annexuerunt; eumque diœceseos illius Episcopo, in qua erit vacans ecclesia vel alteri cuicumque instituendi pastoris sive rectoris potestatem habenti, præsentent ab ipso in pastorem sive rectorem ecclesiæ prædictæ admittendum et instituendum.

Sin vero neminem talem in suo numero invenire poterunt, tunc licebit Magistro et Sociis aliunde sumere quem in beneficium prædictum instituendum præsentent.

Advocationes cuiquam concedendi Magistro et Sociis omnem facultatem penitus præscindimus, ut et impropriationibus assentiendi potestatem.

Cap. XXX.—De Collegii Reditibus allocandis.

[Objected to by College, and cancelled accordingly.]

Cap. XXXI.—De Pensionariis intra Collegium admittendis.

Circumspicientes adhuc unde pernicies aut malum aliquod huic corpori oriri queat, non videmus id facile fieri posse ex membris ipsus cum tam exacta cujusque personæ priusquam in illum numerum recipiatur probatio habenda sit. Maximum ergo quod veremur, est, si quosdam præter hunc numerum convivas, et Pensionarios admittant, quorum non integra conversatio alios forte corrumpet atque ita sensim universi reliqui corporis labes sequetur: Volumus igitur et statuimus quod nemo alius ut Pensionarius admittatur ad convictum et conversandum in dicto Collegio nisi qui testimonio Magistri et majoris partis Sociorum probatæ ac famæ inviolatæ fuerit; quique etiam Scholaribus, Sociis, aut Discipulis in moribus probis excolendis, artibus scholasticis exercendis et divinis officiis celebrandis, se conformaturum fideliter promiserit, et hisce nostris Statutis et Legibus obtemperaturum, priusquam intra dictum Collegium admittatur. Neque quenquam Pensionariorum prædictorum diutius in Collegio morari permittimus quam ut Scholastica exercitia, quæ cæteris suæ conditionis imponentur diligenter obeat, et moribus talis esse perseveret, ut Magistri judicio probetur. Nullum etiam pro Pensionario ad convictum Scholarium admitti vel in Collegio morari volumus, qui beneficium aliquod nactus est curam animarum annexam habens.

Cap.

Cap. XXXII.—De ambiguis et obscuris interpretandis.

Quod si quid obscuri vel ambigui in his nostris Statutis emerserit quod interpretationem necessariam desideret, de eo Magistrum et Socios in Collegio præsentes tractare volumus, et interpretationem quam ipsorum pars major fecerit pro vera et legitima haberi et teneri. Quod si inter ipsos modo prædicto non convenerit, vel si quispiam ex Sociis vel Scholaribus interpretationem illam iniquam esse queretur, tunc intra decem dies a tempore tractatus prædicti Magistrum Collegii Christi et duos seniores in Sacra Theologia Doctores Universitatis prædictæ adiri volumus, et quam sententiam Statuti controversi duo ipsorum esse decreverint, ex ea volumus controversiam prædictam terminari, omnesque in eadem acquiescere.

Cap. XXXIII.—De Cœlibatu Sociorum.

[Objected to by College, and cancelled accordingly].

Cap. XXXIV.—Statutum de Camera consanguineis Fundatoris reservanda.

Cum per Fundatoris Statuta constitutum sit ut camera una, ex earum numero quæ tunc temporis recens exstructæ erant, posteris et consanguineis suis sub certis conditionibus reservaretur, volumus et statuimus ut integra in posterum maneat Fundatoris de hac re constitutio, et reservetur semper camera ab illo designata posteris et consanguineis ejus assignanda (si qui in Collegio fuerint) prout in Statutis ab ipso editis constitutum est.

Cap. XXXV.—De Valore Pecuniæ mutato.

Si quando ob mutatum pecuniæ valorem, summæ in his Statutis expressæ aut majores aut minores æquo visæ fuerint Magistro et Sociis, ita ut injuria afficiantur vel singulorum vel Collegii commoda, tunc licebit iis, per literas Sigillo Collegii communi consignatas, approbante Procancellario Universitatis, aut augere aut diminuere summas prædictas, ita ut pares et æquæ fiant: quæ summæ pares et æquæ in posterum vice summarum in his Statutis expressarum stent; idque fiat quoties necessitas postulabit.

CAP. XXXVI.—De Jure appellandi ad Procancellarium.

UBICUNQUE his Statutis jus appellandi ad Procancellarium Universitatis concedatur, Procancellarius, accitis ad se duobus in Sacra Theologia Doctoribus, aut ob eorum absentiam Baccalaureis in eadem senioribus, citata utraque parte rem audiat, et si, altero Assessorum suorum assentiente, repererit personam ad illum appellantem justam appellandi causam habere, sine mora personam illam in jus suum restituet. Si vero inique appellasse repererit, tunc sententiam in personam appellantem prius latam, cum assensu supradicto confirmet, quæ sententia postea robore suo permanebit.

Given under our Common Seal, this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of THREE STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 16th of May 1860, under the 19 & 20 Vict. c. 88, concerning the BYE FOUNDATIONS at EMMANUEL COLLEGE, in the said University of Cambridge.

STATUTES concerning BYE FOUNDATIONS at EMMANUEL COLLEGE.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the three following Statutes respecting the Fellowship founded by Mr. Gillingham at Emmanuel College, in the University of Cambridge, and respecting the Scholarships founded by Mr. Francis Ash at the same

same College, and respecting the several other Scholarships and Exhibitions enumerated in the same.

1.—Gillingham Fellowship.

From the date of the confirmation of this Statute there shall be no further election to the Fellowship at Emmanuel College founded by Mr. Gillingham.

All the emoluments derived by the College from the Foundation of the said Mr. Gillingham shall be carried to the general funds of the College, to be applied in the manner directed by the Statutes of the College.

2.—Ash Scholarships.

From the date of the confirmation of this Statute there shall be no further election to any of the ten Scholarships at Emmanuel College founded by Mr. Francis Ash, with preference to Scholars from the Grammar Schools of Derby and Ashby-de-la-Zouch respectively.

In lieu of the said ten Scholarships there shall be established at Emmanuel College two Exhibitions of the annual value of 50 *l.* each, to be called the Ash Exhibitions.

In the election to such Exhibitions, preference shall be given to a Scholar who has been educated at the Grammar School of Derby, and a Scholar who has been educated at the Grammar School of Ashby-de-la-Zouch, alternately from the one School and the other.

No preference shall be shown to any Scholar from either of the above-mentioned Schools, unless such Scholar shall have been educated at such School for the space of two years at least last preceding his election, or last preceding his matriculation at the University.

The candidates for such Exhibitions shall be subject to such examination as the Master and Fellows of Emmanuel College shall think proper, in order to ascertain their fitness to become Students of the College.

In default of any competent candidate from the School entitled to a preference in the election for that turn, the Exhibition then vacant shall be treated as open to general competition.

Each of such Exhibitions shall be tenable until the person holding it shall be of standing to take the degree of Bachelor

of Arts, or in any case in which the Master and Fellows of Emmanuel College may think fit, until he is of standing to take the degree of Master of Arts, but no longer.

3. Consolidation of small Scholarships.

From the date of the confirmation of this Statute there shall be no further election to the Scholarship at Emmanuel College founded by Mr. Chamberlin, nor to any of the four Scholarships at the same College founded by Dr. Whichcote, nor to any of the two Scholarships at the same College founded by the Rev. J. Browne, nor to either of the two Exhibitions at the same College founded by Mr. Richards.

All the emoluments derived by the College from the Foundations of the several benefactors above enumerated, for the purpose of the maintenance and support of the Scholars and Exhibitioners aforesaid, shall be consolidated into one general fund.

In lieu of the above-mentioned Scholarships and Exhibitions there shall be established at Emmanuel College five open Scholarships in addition to the Scholarships constituted by the general Statutes of the College.

Each of such Scholars shall receive out of the fund constituted by this Statute an annual payment of not less than thirty pounds.

Any person elected into one of such Scholarships shall be eligible for any of the Scholarships constituted by the general Statutes of the College, and, in the event of his being elected, his Scholarship shall be tenable with such other Scholarship.

Given under our Common Seal this Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES

COPIES of STATUTES, marked Cap. XVI., XXX. and XXXIII., framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 4th of August 1860, under the 19 & 20 Vict. c. 88, for the future Government and Regulation of EMMANUEL COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statutes, marked CAP. XVI., CAP. XXX. and CAP. XXXIII., respectively, for the future government and regulation of Emmanuel College, in the University of Cambridge:—

CAP. XVI.—De Cultu Dei.

SINGULIS diebus, præcipue vero Dominicis, officium Divini Cultus, horis congruis per Magistrum assignandis, celebretur in Capella Collegii, juxta formam in Ecclesia Anglicana, uti legibus regni stabilita extat, receptam et usitatam.

Licebit Magistro et Sociis identidem ordinationes de Cultu Dei rite celebrando facere, et statuere qui adesse celebrationi debeant, et quibus abesse permittatur; et ordinationes mutare vel antiquare, prout optimum illis visum fuerit.

Sacræ vero communionis officium, semel ad minimum in unoquoque termino, Magister ipse, vel aliquis per Magistrum deputatus, celebrabit.

CAP. XXX.—De Collegii Reditibus allocandis.

VOLUMUS etiam ut proventus omnes quos ex munificentia benefactorum variorum Collegium acceperit inter Magistrum et Socios, aut inter Socios ipsos aut illorum aliquos dividendos, aut aliquibus eorum singulatim attribuendos, aut qui antehac inter illos dividi soliti sint, cæteris reditibus Collegii in posterum accedant.

Volumus etiam ut quotannis post annuum computum factum omnibus prius solutis quæ per necessitatem legis imponentur,

nentur, seponatur semper decima pars totius summæ quæ ex proventibus prædictis et reditibus cæteris Collegii constiterit, ad ædificia Collegii sarta tecta conservanda. Pecuniam autem quæ supersit primum ad stipendia Officiarorium et Discipulorum, tum etiam famulorum Collegii solvenda, deinde ad solutiones alias omnes quæ vel per hæc Statuta vel alia in posterum rite facienda constitutæ sint, allocari volumus. His autem omnibus solutis quod supersit in sexdecim partes dividatur, quarum quatuor Magister, singulas singuli Socii recipiant. In proprium usum etiam Magistro concedimus hortum unum et herbagium omnium terrarum intra ambitum ipsius Collegii, excepto Sociorum pomario.

Duodecim autem tantum Socios in præsentia constitui volumus: donec proventus Collegii in tantum excreverint ut sufficiant ad majorem numerum Sociorum in posterum alendum. Duodecim etiam Scholares Discipulos in præsentia constituimus; quorum unumquemque sexaginta ad minimum libras pecuniæ singulis annis accipere volumus. Neminem autem Sociorum plus quam ducentas et quinquaginta libras pecuniæ pro portione sua ex reditibus Collegii accipere volumus, nisi tredecim ad minimum in Collegio Socii, et tredecim etiam ad minimum Scholares Discipuli prius constituti sint.

Cap. XXXIII.—De Cœlibatu Sociorum.

Nemo in Socium eligatur qui uxorem habeat, iis tantum exceptis quos sub Capite XX. Statutorum nostrorum eligere liceat.

Si quis ex Sociis post admissionem suam uxorem duxerit, Societatis omne jus et emolumentum in perpetuum amittat, nisi sit unus ex iis quos sub Capite XX. Statutorum nostrorum eligere liceat; aut nisi intra Universitatem locum Professoris teneat (cujus annuus proventus quingentas libras pecuniæ communibus annis non excedat), quo in casu licebit ei Societatem retinere quamdiu locum Professoris teneat, etiamsi uxorem duxerit. Proviso quod uni tantum ex Sociis licebit eodem tempore hac conditione frui.

Licebit autem Magistro et Sociis, duabus partibus eorum in hoc consentientibus, et approbante Procancellario Universitatis, Socium aliquem, qui per spatium integrum quindecim annorum aut officio Professoris intra Universitatem, aut Tutorum Adjutoris vel Bursarii in Collegio functus sit, licentiam concedere ut Societatem suam retineat, etiamsi uxorem duxerit.

Proviso quod quicunque Socius virtute alicujus supradictarum exceptionum Societatem retinebit postquam uxorem duxerit,

duxerit, jus omne senioritatis observandæ, sicut in Capite XIX. Statutorum Collegii stabilitum est, amittet; et in ecclesiarum et beneficiorum collationibus, et in camerarum assignatione, pro non Socio habebitur.

Given under our Common Seal this Fourth day of August, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 19th day of April 1860, under the 19 & 20 Vict. c. 88, for the future Government and Regulation of KING'S COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament, holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision "for the good Government and Extension of the University of "Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers given to us by the said Act, make the following Statutes for the future regulation of King's College, in the University of Cambridge, and for making further provision for maintaining and improving the discipline, studies, and good government of the said College, which Statutes are contained in the twenty-one printed pages next following:—

STATUTES OF KING'S COLLEGE, CAMBRIDGE.

A.—THE CONSTITUTION OF THE COLLEGE.

1. THE Foundation of the College shall consist of a Provost, at least forty-six Fellows, and at least forty-eight Scholars, and of the following Stipendiary Members, viz., two Chaplains, an Organist, twelve Lay Clerks, sixteen Choristers, and a Master over the Choristers.

B.—The Provost.

Statute 1.—Qualifications and Duties.

The Provost of the College shall be a member of the Church of England, not less than thirty years of age, and a Master of Arts, or of some superior degree in the University of Cambridge. The electors shall choose some person distinguished for his attainments in theology, literature, or science, who, in their judgments, is also best qualified by his piety, discretion, and knowledge of affairs to secure the good government of the College as a place of religion, learning, and education.

He shall exercise a general superintendence over the affairs of the College, shall preside *ex officio* at all meetings of the Fellows, and shall have the power, in all cases not provided for by the Statutes of the College, or by special order of a College meeting, to make such provision for the good government and discpline of the College as he shall think fit.

Statute 2.—Election.

The electors to the Provostship shall be all the Fellows of the College who are Masters of Arts, or of an equal or superior degree.

On the day succeeding that upon which the vacancy of the office of Provost, whether by deprivation, voluntary resignation, promotion, or death, is made known to him, the Vice-Provost, or in his absence the Senior Fellow in residence, shall call the other electors who are in College together, who shall then fix the day and hour for the election of a new Provost, such day to be not before the 15th nor later than the 30th from that on which they meet, and shall also cause notice thereof to be given, as far as may be practicable, to all the electors who are absent. On the day and at the hour thus fixed, the electors shall assemble in the College chapel, where the Vice-Provost, or in his absence the Senior Fellow present, and after him the other Fellows in their order, shall make the following declaration :—"I, *M. N.*, do solemnly declare that "I will choose as Provost the person that shall be in my judg- "ment best qualified, according to the Statutes, to secure the "good government of this College as a place of religion, "learning, and education." After these declarations are made, the Vice-Provost and two Senior Fellows present, or in the absence of the Vice-Provost, thethree Senior Fellows present, shall

shall stand in scrutiny, and first write their own votes on separate papers, and afterwards receive the votes, similarly written, of all the other Fellows. If, upon examination, it appears that a majority of all the votes of the Fellows present are given for one person, the junior of the three scrutineers shall read the several votes, after which the Vice-Provost, or in his absence the Senior Fellow present, shall pronounce such person duly elected Provost of the College; but if at this first scrutiny there is no such majority of votes given for one person, the scrutineers shall within two days proceed to make a second scrutiny in the same manner as before, and the person, if any, who on this second scrutiny has the majority of votes of the electors present, shall be pronounced to be elected Provost; and if at this second scrutiny no such election shall be made, the Vice-Provost, or in his absence the Senior Fellow present, shall send notice to the Visitor, who thereupon shall appoint a person duly qualified according to these Statutes, and shall require the Vice-Provost, or in his absence the Senior Fellow in residence, to admit him as hereinafter provided.

If the Provost elect shall accept the office, notice of the election shall forthwith be sent to the Visitor, under the Seal of the College, and the Visitor shall thereupon have power to admit him, having previously required him to make the following declaration:—

"I, *M. N.* elected Provost of the College of the "Blessed Mary and St. Nicholas, commonly called "King's College, in the University of Cambridge, do "solemnly profess and declare that I will govern and administer the College, its benefices, lands, tenements, "and possessions, and all property of the same, and "maintain its rights, liberties, and privileges, as far as in "me lies, free from all detriment, loss, and diminution; "that I will observe all the Statutes of the College and "act in accordance with the same; that I will govern "all the Fellows, Scholars, and other members of the "College, according to the Statutes of the same, without "fear or favour or partiality in respect of any person "whatsoever; and will endeavour to the utmost of my "power that all other persons concerned in the government and administration of the College shall conform to "the Statutes of the same; that in case I should resign "or be removed by legitimate authority from the office of "Provost, I will render up all the goods, property, and "possessions of the College which have been in my charge

" and keeping, to the Vice-Provost and other officers of " the College."

If the Visitor fail to admit the Provost elect within five days after receiving notice of his election, or if the Provost be appointed by the Visitor by right of devolution, the Vice-Provost, or in his absence the Senior Fellow in residence, shall require the Provost so elected or appointed to make the aforesaid declaration in presence of the Fellows assembled in the College Chapel, and shall then admit the Provost to his office.

If the Provost elect, being present, decline to accept the office, the Fellows shall proceed to another election at the same hour on the following day, unless such day be Sunday, and then on the day following; but if the Provost elect be absent, and refuse to accept the office, the Vice-Provost, or in his absence the Senior Fellow in College when the refusal is made known, shall call the electors together and appoint a day, after an interval of not more than seven days, for the election of a new Provost; and shall cause notice thereof to be given, as hereinbefore provided.

Statute 3.— Residence.

The Provost shall be required to reside in the College during the whole of every term, unless absent on College business, or prevented by sickness or other urgent cause, to be signified by him to the Vice-Provost.

If the Provost shall not (except for one of the reasons aforesaid) so reside, the Visitor, upon the representation of any one or more of the Fellows, and after due inquiry made thereupon, may admonish the Provost, if the complaint shall be established to his satisfaction; and if after three such admonitions a fourth complaint of such non-residence according to the provisions of these Statutes shall be made and established, the Visitor shall proceed to deprive the Provost of his office, and by his mandate directed to the Vice-Provost require him to proceed, as in the case of a vacancy by death or other cause, to the election of a new Provost.

Statute 4.—Provision in case of Incapacity of the Provost.

If the Provost shall at any time become permanently incapable of performing the duties of his office, the Visitor, on being satisfied thereof, shall, upon the application of the majority of the Fellows qualified to take part in the government

ment of the College, present at a meeting convened for the purpose of taking the matter into consideration, or upon the application of the Provost himself, have power to appoint one of the Fellows qualified as aforesaid, to act in the Provost's place during such his incapacity, and to assign to the person so appointed such portion as he shall think fit, not exceeding one-third, of the Provost's emoluments.

It shall be incumbent upon the Vice-Provost, or in his absence, upon the Senior Fellow in residence, to convene the meeting of the Fellows for the purpose in the foregoing paragraph mentioned, upon the request of any three or more of the Fellows qualified as aforesaid, and notice of such meeting shall be sent to each of the said Fellows.

The Fellow who shall be appointed by the Visitor to act in the Provost's place shall be called "Pro-Provost." He shall retain his office, and receive the portion of the Provost's salary which shall have been assigned to him, until the Provost shall be reinstated in his office, or shall cease to be Provost; and so long as he shall continue in office he shall exercise and perform all the functions and duties, and have all the powers and authorities of the Provost (except the power of consenting to any commutation of the Provost's emoluments), and shall be bound to residence in the same manner, and be liable to deprivation for the same causes and in like manner, as the Provost.

If the Pro-Provost shall die, or resign his office, or vacate, or be deprived of his Fellowship, or become permanently incapable of discharging his duties, the Visitor shall have the like power upon the like application of appointing another of the Fellows to be Pro-Provost in his room, and of assigning a salary to such Pro-Provost.

If the Provost shall at any time after the appointment of a Pro-Provost again become capable of performing his duties, the Visitor on being satisfied thereof shall have power to reinstate him in his powers and functions, and in receipt of his whole emoluments.

Statute 5.—Power of Removal of the Provost.

If the Provost shall openly secede from the Church of England, the Visitor shall, with all convenient speed, proceed to inquire into the fact, and if it be established, to deprive the Provost of his office.

If the Provost shall have been convicted by a Court of competent jurisdiction of any crime, of whatsoever nature or description,

scription, the Visitor may, if he shall think fit, proceed to inquire into the fact of such conviction, and if it be established may deprive the Provost of his office.

If any three or more of the Fellows resident in College, and qualified to take part in the government of the College, shall prefer to the Visitor a charge against the Provost, either of disgraceful conduct, or of malversation in his office, or of grave neglect of his duty, whereby he has become unfit to preside over the College, the Visitor shall, with all convenient speed, proceed to inquire into the facts of the case, and if the charge be established, may deprive the Provost of his office.

Statute 6.—Power of commuting the Provost's Emoluments for a fixed Stipend.

The Provost and Fellows in a General Congregation may, at any time hereafter, if they shall think fit, commute the emoluments of the Provostship, wholly or partially, for a stipend or annual sum of money, payable in any other manner out of the revenues of the College, or for a certain proportion of the said revenues; and may fix the time at which such commutation shall take effect; and may also from time to time regulate, increase, or diminish the Provost's emoluments, whether commuted or uncommuted, as they shall think proper: Provided always, that no exercise of this power shall affect the person then Provost without his consent: Provided also, that it shall be lawful for the Provost or any Fellow to appeal to the Visitor against such commutation, regulation, increase, or diminution of the Provost's income, and that no such commutation, regulation, increase, or diminution shall take effect until it has been submitted to the Visitor and approved by him.

C.—Annual Officers of the College.

Statute 1.—The Vice-Provost.

There shall be chosen annually one of the Fellows of the College, to be called Vice-Provost. His duty shall be to attend, under the Provost, to the good government of the Fellows, Scholars, Officers, and servants of the College, to enforce the observance of the Statutes, to act as the Provost's deputy in his absence, and to perform such other acts as are prescribed by these Statutes, or as may be prescribed by the orders of the Provost and Fellows. He shall not be absent from

from College during term at the same time with the Provost, except for very grave cause; but in case of his absence at any time, it shall be lawful for the Provost to appoint one of the Fellows to act as Deputy Vice-Provost during such absence, who shall have in all respects the same powers as the Vice-Provost.

Statute 2.—The Deans.

There shall be chosen annually, from among the Fellows of the College, two Deans, whose duty it shall be to provide for the solemn and decorous performance of divine worship in the College Chapel, in conformity with such orders relating thereto as may be made from time to time by the Provost and Fellows. It shall be their duty also to maintain, as far as in them lies, discipline and good order amongst such members of the College as are in *statu pupillari*. They shall not both be absent from College at the same time, except for some grave cause, to be approved by the Provost, or in his absence by the Vice-Provost.

If either of them shall be absent from College for more than three days, he shall be required to appoint a deputy, to be approved by the Provost, or in his absence by the Vice-Provost.

Statute 3.—The Bursars.

There shall be elected annually three Treasurers or Bursars. The Bursars shall have the care of the property of the College, receive all rents and monies due to the College, and make such payments, under the orders of the Provost and Fellows, as may be due from the same. They shall superintend the buildings, offices, rooms, courts, and gardens of the College, and provide, under the orders of the Provost and Fellows, what is necessary for their maintenance and repair. The several departments of these duties shall be distributed amongst the Bursars according to such regulations as shall be made from time to time by the Provost and Fellows assembled at a General Congregation. The monies of the College, which shall be received by the Bursars, which are not required for immediate College purposes, shall be kept by them in some Bank or Banks, or otherwise invested according to the orders of the Provost and Fellows, and no loan or temporary or other investment thereof shall be made by them, unless in conformity with such orders.

Statute 4.—Election of Officers.

The annual College Officers shall be elected by the Provost and Fellows assembled at a General Congregation. The election shall take place at a General Congregation in the October Term; but if any office become vacant in the course of the year, by resignation or otherwise, the vacancy shall be filled up at the next General Congregation, or at a Special Congregation summoned for the purpose.

Statute 5.—Residence of Officers.

The annual College Officers shall be bound to reside during such part of every year as shall be required by the regulations of the College, unless engaged upon College business, or for some other grave cause, to be signified to the Provost, or in his absence to the Vice-Provost.

Statute 6.—Stipends.

It shall be lawful for the Provost and Fellows at a General Congregation to assign any stipends which they may think fit to the Vice-Provost and other Officers of the College, to the Chaplains and Librarian, and to the Examiners, and to vary the same from time to time.

Statute 7.—Creation of New Offices.

It shall be lawful for the Provost and Fellows in a General Congregation to create any new offices which they may think, from time to time, necessary for the more efficient management of the affairs of the College, or for the better enforcement of its discipline, and to assign to the holders thereof such stipends as they may think fit; provided always, that such offices may be annulled or the duties of them varied from time to time by the same authority which created them, and that the holders of such offices shall not be entitled to claim any compensation in case of the suppression of such offices, and shall be removeable from them at the pleasure of the Provost and Fellows in a General Congregation.

D.—Government of the College.

The government of the College shall be vested in the Provost, and all the Fellows who are Masters of Arts, or of an equal or superior degree.

An

An ordinary College Meeting shall be called as often as the Provost, or in his absence the Vice-Provost, shall deem expedient.

The Provost, or in his absence the Vice-Provost, shall summon an ordinary College Meeting during term as often as any three of the Fellows qualified to take part in the government of the College shall prefer a request in writing for the same.

All Fellows in residence, qualified to take part in the government of the College, shall be summoned to every such meeting.

No business shall be transacted at any ordinary College Meeting unless there be present at least five persons qualified to take part in the government of the College, of whom the Provost, or in his absence the Vice-Provost, or in the absence of both the Deputy Vice-Provost, shall be one.

There shall be given at least two days' previous notice of the business to be transacted at every ordinary College Meeting.

At any ordinary College Meeting the Provost, or in his absence the Vice-Provost, shall be required to put to the vote any proposition of which he shall have received three days' previous notice in writing from any two Fellows qualified to take part in the government of the College.

At any ordinary College Meeting all questions shall be decided by a majority of the votes of those present; the Provost, or in his absence the Vice-Provost, having a casting vote in case the votes are equally divided.

Provided always, that in the transaction of business other than elections, in case of a difference of opinion between the Provost and the majority of the Fellows present at any College Meeting, the question as to which such difference may exist shall not be deemed to be necessarily carried by such majority, but shall, if the Provost so declare, be adjourned to the next General Congregation, the decision of which shall be final.

There shall be held in each term, on the last Tuesday of November in the October Term, on Shrove Tuesday in the Lent Term, and on Whit Tuesday in the Easter Term, a General Congregation, to which all the Fellows qualified to take part in the government of the College shall be summoned, and at which the Provost, or in his absence the Vice-Provost, shall preside; and notice shall be given in writing at least eight days beforehand of the business to be transacted thereat.

It shall be lawful for the Provost, in case he shall deem it

necessary for any purpose, to summon a special General Congregation, provided that eight days' notice be given of the day of meeting, and of the business to be transacted thereat.

No business shall be transacted at any General Congregation unless there be present at least fifteen persons qualified to take part in the government of the College, of whom the Provost, or in his absence the Vice-Provost, shall be one.

Any Fellow of the College so qualified shall be at liberty to propose any motion for adoption at a General Congregation, provided that he shall have given notice in writing of such motion at least fifteen days previously to the Provost, or in his absence to the Vice-Provost; and if such motion be seconded, he shall be entitled to require that it be put to the vote.

All questions brought forward at a General Congregation of which the required notice has been given, and all elections of officers, shall be decided by a majority of the votes of those present; provided that in reckoning such votes the vote of the Provost (if present) be counted as two votes, and that he be further entitled to a casting vote in case the votes are equally divided.

All questions of importance relating to the management of the College property, such as the granting of leases, the presentation to livings, the entering upon or commencing any legal proceedings concerning the College itself, or the property thereof, or other similar matters, shall be decided only at a General Congregation.

E.—Educational Officers.

There shall be such number of Tutors and Assistant Tutors in the College as the Provost and Fellows in a General Congregation shall from time to time determine.

They shall be appointed, and shall also be removeable, by the Educational Council, with the consent of the Provost.

The Provost and Fellows in a General Congregation shall determine from time to time the amount of tuition money to be paid by the Students who are not Scholars of the College, and the proportions in which the same shall be distributed amongst the Tutors, Assistant Tutors, and all others engaged in the instruction of the College.

The Tutors shall be responsible to the College for all the expenses of their pupils, and shall pay to one of the Bursars every quarter such sums as are owing both for themselves and for their pupils.

F.—The

F.—The Educational Council.

There shall be an Educational Council, of which the Provost, the Vice-Provost, the two Deans, and the Tutors shall be *ex officio* members. It shall be in the power of the Provost and Fellows at a General Congregation to elect any Lecturer, or other person engaged in the education of the College, whether a Fellow or not, to be a member of the Educational Council.

The Educational Council shall superintend and regulate the studies of the members of the College *in statu pupillari*, and shall from time to time adapt them to the requirements of the University examinations.

The Educational Council shall appoint the Posers, the Examiners for Open Scholarships, the Examiners for Fellowships, and any other College Examiners, subject in all cases to the approval of the Provost and Fellows at a General Congregation.

It shall be lawful for the Provost and Fellows to require any of the Fellows of the College to serve as Examiners.

At meetings of the Educational Council all questions shall be decided by a majority of the votes of those present, the Provost, or in his absence the Vice-Provost, having in addition a casting vote in case the votes are equally divided.

Subject to the above regulation, the Educational Council shall have power to frame for itself rules and regulations for the transaction of business.

In case of an University Professorship being attached to the College, the Professor may be appointed by the Provost and Fellows a member of the Educational Council.

G.—Fellowships.

Statute 1.—Conditions of Eligibility.

[Objected to by Eton College, and cancelled accordingly.]

Statute 2.—Election of Fellows.

All vacancies occurring in the Fellowships of the College shall be filled up at a period not later than the next succeeding annual election of Fellows. An annual election shall take place on the second Saturday of the Easter Term, or on such other day as the Provost and Fellows shall appoint.

The intellectual qualifications of the candidates, and their proficiency in any branch or branches of the University studies, shall be ascertained in such mode as the Provost and Fellows shall determine, and the electors shall choose in each case that candidate (being otherwise duly qualified) whom they shall think to be the most fit to be a Fellow of the College as a place of religion, learning, and education.

The election of the Fellows shall be vested in the Provost (or in his absence the Vice-Provost), and such of the Fellows as may have been appointed by the Educational Council to take part in ascertaining the qualifications and proficiency of the candidates; provided that the number of such electors be (including the Provost) not less than nine.

No person shall vote at such election who has not taken part in ascertaining such qualifications and proficiency.

The Provost shall be always present at the election, and take part in ascertaining the qualifications and proficiency of the candidates, unless prevented by urgent cause.

Before proceeding to make their election, the electors shall severally make the following declaration:—

> "I do solemnly declare, that I will vote for that "person who is, in my judgment, the most fit to be a "Fellow of the College, as a place of religion, learning, "and education."

The election shall be decided by the majority of votes. In case of equality of votes the Provost, or in his absence the Vice-Provost, shall have a casting vote, in addition to his vote as one of the electors.

Within three days next following the election, the Provost and Fellows shall meet in the College Chapel, and shall call upon the several Fellows elect to make the following declaration:

> "I, *M. N.*, elected a Fellow of this College, do de- "clare that I am *bonâ fide* a member of the Church of "England, and I do solemnly profess and declare, that "I will observe all the Statutes, Rules, and Regulations "of the College; that I will be faithful to the same, "and do nothing that may be detrimental to it; but to "the utmost of my power will maintain and support the "interests of the same; that I will obey the Provost "and all other Officers of the College in all lawful com- "mands and directions; and that if I should hereafter be "expelled or removed from my Fellowship in accordance "with

" with the Statutes of the College, I will not bring
" any suit or action either against the Provost or against
" any other member of the College on account of such
" expulsion, and will not appeal against the same except
" to the Visitor of the College in the manner prescribed
" by the Statutes."

After this declaration the Fellow elect shall be admitted to the Fellowship by the Provost, or in his absence by the Vice-Provost, and shall enter upon the emoluments of the same; but he shall not be allowed to take any part in the government of the College until he has taken the degree of Master of Arts, or an equal or superior degree.

If any person elected a Fellow shall be prevented by illness or other grave cause from presenting himself for admission at the same time with the other Fellows elect, it shall be lawful for the Provost and Fellows to admit him at some later time, on his making the same declaration as above.

Statute 3.—Removal of Fellows.

If any Fellow shall openly secede from the Church of England as by law established, the Provost shall, with all convenient speed, assemble a meeting of the Provost, Vice-Provost, Deans, and five other Fellows, to be appointed annually at the election of officers, and the meeting so assembled shall proceed to inquire into the case, and if it be established, to declare his Fellowship vacant.

If any Fellow shall be convicted by a Court of competent jurisdiction of any crime, of whatsoever nature or description, the Provost shall, with all convenient speed, assemble a meeting, constituted as above, who may, if they think fit, proceed to inquire into the case, and if the fact of such conviction be established, the Provost, with the concurrence of a majority of the others so assembled, may expel such Fellow from the College.

If any two Fellows of the College shall prefer before the Provost against any Fellow a charge of disgraceful conduct, rendering him unfit to be a Fellow of the College, the Provost shall, with all convenient speed, assemble a meeting, constituted as above, who shall proceed to inquire into the case, and if the charge be proved, the Provost may, with the concurrence of a majority of the others so assembled, expel the Fellow so offending from the College.

Provided, that if in any of the above cases, either an accusing or accused party be Vice-Provost, Dean or one of the

five Fellows so appointed, his place at the meeting shall be left vacant.

Provided also, that in every case a Fellow removed under any of the provisions of this Statute may exercise his right of appeal to the Visitor.

Statute 4.—Of proceeding to Degrees.

Fellows who are Bachelors of Arts, or Bachelors of Laws, shall proceed to the degree of Master of Arts or Master of Laws as soon as they are of standing to take such degree; and Fellows who are Bachelors of Medicine shall proceed to the degree of Doctor of Medicine as soon as they are of standing to take such degree.

Fellows not so proceeding to their degrees in due course (unless prevented by illness or other grave cause, to be approved by the Provost and Fellows), shall forfeit their Fellowships.

All Fellows shall preserve their seniority in the order of Fellows, according to priority of admission as Fellows, and not according to their degrees.

No Fellows shall be required to proceed to the degree of Bachelor or Doctor of Divinity, or of Doctor of Laws.

Statute 5.—Vacation of Fellowships.

Every Fellow who marries shall vacate his Fellowship at the expiration of one year from the date of his marriage.

Any Fellow who shall come into the possession of any ecclesiastical preferment on the presentation of the College, of any value whatsoever, or of any ecclesiastical preferment not in the patronage of the College of the annual value of not less than 300*l.* (after deducting rates, taxes, and all other legal charges), or who shall become Master, Fellow, or Member on the Foundation of another College, shall thereby vacate his Fellowship, except in the case of a living which, being in the patronage of the College, and under the clear annual value of 300*l.*, has first been offered in order to every Fellow of the College who is in Holy Orders, with the condition of vacating his Fellowship, and has been declined by all: Provided, that any Fellow coming into the possession of any ecclesiastical preferment shall be allowed to retain his Fellowship for one year after coming into such possession.

No Fellow shall vacate his Fellowship by reason of not entering into Holy Orders.

Statute 6.—Honorary Fellows.

It shall be lawful for the Provost and Fellows, at a General Congregation, by a vote of not less than two-thirds of their number, to elect any person distinguished for his literary or scientific merits, or who having been a Fellow of the College shall have vacated his Fellowship, whether by marriage or otherwise, to an Honorary Fellowship. Such Honorary Fellow shall possess no voice or authority in the College, nor be entitled to any dividend; but he may enjoy such privileges with respect to commons, the occupation of rooms, or other advantages, as the Provost and Fellows, at a General Congregation, may from time to time determine: Provided that, if married, he shall not be allowed to reside in College.

Statute 7.—Power of choosing Professors and Eminent Men as Supernumerary Fellows.

It shall be lawful for the Provost and Fellows at a General Congregation, by a vote of not less than two-thirds of the number present, to elect and admit to a Supernumerary Fellowship in the College any of the following persons:—

First. Any Professor or Public Lecturer of the University not holding any ecclesiastical preferment out of the precincts of the University, and not being Master or Fellow of any other College, whether he be married or not. Such Professor or Public Lecturer shall be allowed to retain such Fellowship so long as he shall continue to hold a Professorship or Public Lectureship in the University, and no longer. He shall not vacate his Fellowship by marriage, but, if married, shall not be entitled to rooms in College. He shall vacate his Fellowship by accepting any ecclesiastical preferment out of the precincts of the University.

Secondly. Any person eminent for science or learning (whether or not he may be a Member of the College or of the University), not being married, and not holding any ecclesiastical preferment out of the precincts of the University, and not being Master or Fellow of another College. Every person so elected shall vacate his Fellowship by marriage, or by accepting any ecclesiastical preferment not within the precincts of the University.

No person elected under either of the above provisions shall be entitled to claim in right of his Fellowship the presentation to a College living.

STATUTE 8.—Preservation of Rights of existing Fellows.

THE emoluments, tenure of office, and other interests of a pecuniary nature, of the present Provost, and of all Fellows elected before the confirmation of these Statutes by Her Majesty in Council, shall be in no respect affected by the present Statutes: Provided, that if the Provost or any such Fellow shall elect to be placed in these respects under the operation of the present Statutes, it shall be lawful for him to signify such election to the Provost and Fellows by writing under his hand, and his rights in such respects shall be thenceforth governed by the present Statutes accordingly.

H.—SCHOLARSHIPS.

[Objected to by Eton College, and cancelled in consequence.]

I.—DISCIPLINE AND GENERAL MANAGEMENT.

STATUTE 1.— Discipline of the College.

ALL persons in *statu pupillari* shall show due reverence and obedience to the Provost, the Vice-Provost, and other Officers of the College; they shall conduct themselves in a quiet and orderly manner within the College, and shall observe the Statutes, and shall conform to all such orders and regulations as may be made by the Provost and Fellows from time to time for the good government of the College; and if any such person, not being a Fellow of the College, shall not observe the Statutes or the rules and regulations above referred to, or be guilty of any offence subversive of discipline and good order, or tending to bring scandal upon the College, he shall be punished by the Provost, or by the Dean acting on behalf of the Provost, in such a manner as the offence may appear to deserve: Provided always, that the penalty of temporary or final removal from the College, or, in the case of a Scholar, of deprivation of his Scholarship, or temporary forfeiture of the emoluments and advantages thereof, shall be inflicted only by the tribunal constituted in Statute G. 3. for the removal of Fellows.

STATUTE

STATUTE 2.—The internal Arrangements and Regulations of the College.

IT shall be lawful for the Provost and Fellows at a General Congregation to make from time to time such regulations as they may think fit in respect to the admission of Pensioners at the College, and to the attendance of Undergraduates, whether Scholars or Pensioners, at the lectures given in the College; and concerning the declamations or other exercises to be performed by the Students; and concerning the annual or other Examinations of the same; and concerning the dress of the same; and concerning their residence in College, and the conditions for granting *exeats*; and concerning the graces to be said before and after meals in the College Hall; and concerning the service for the annual commemoration of benefactors, and the day on which it shall be celebrated; and concerning the assignment of rooms in College; and concerning the supervision and inspection of the Estates of the College; and concerning the preservation and inspection of all documents relating thereto; and concerning the care and safe custody of the plate, utensils, and other goods of the College, and also of the books in the library of the same; and respecting the opening and closing of the gates of the College, and the keeping the keys of the same; and respecting the service of the College, and the number, duties, and payments of the servants of the same; and concerning the invitation of strangers to dinner in the College Hall; and concerning all other internal arrangements in the College; and to vary such regulations from time to time as they may think fit: Provided that the Provost shall have as heretofore the right of appointing and dismissing all servants connected with his personal and domestic establishment, and that the appointment and dismissal of all other College servants shall be in the hands of the Provost and Officers.

K.—CHAPEL.

THERE shall be in the College two Chaplains, an Organist twelve Lay Clerks, sixteen Choristers, and a Master over the Choristers.

They shall be appointed and dismissed by the Provost and Officers.

They shall receive such stipends as shall be fixed from time to time by the Provost and Fellows at a General Congregation.

The Choristers shall be boarded and lodged under proper supervision, with a sufficient allowance for clothes.

Any Choristers who have a talent for music shall have instruction in instrumental music under the Organist.

Some assistance from the College funds may be given to the Choristers upon leaving the choir.

If any Chorister on leaving the choir is proved to have a special aptitude for academical studies, an extra grant of money may be made to help him towards entering the University.

Divine service shall be celebrated in the College Chapel, according to the Liturgy of the United Church of England and Ireland, daily throughout the year, unless for some cause to be approved by the Provost and Fellows. The Provost and Fellows at a General Congregation may make such regulations as they may deem expedient for the due celebration of the same, and for requiring or dispensing with attendance on the same, and may vary such regulations from time to time as they may think fit.

L.—The Audit.

Statute 1.—The Auditor and his Duties.

The Provost and Fellows at a General Congregation shall appoint an Auditor of the College, to whom they shall assign such a stipend as they may think proper, and who shall continue to hold his office at the pleasure of the Provost and Fellows. It shall be the duty of the Auditor, before the annual audit of the College accounts, to examine and verify the accounts of the Bursars of the College and the vouchers thereof, to ascertain the balances which may be severally due from them or to them, and to sign such accounts if found correct, and to report to the Provost and Fellows whatever may appear to him to require amendment or observation.

After the College accounts have been thus audited and signed by the Auditor, they shall be submitted to the inspection of the Provost, the Vice-Provost, and three Fellows, to be appointed by the College.

Statute 2.—Annual Statement of the Accounts.

The Bursars shall make or cause to be made, as soon after the conclusion of the general audit in each year as they conveniently can, a statement of all monies, rents, and profits of all kinds whatsoever received by them as Bursars during the year

year preceding such general audit, and also a statement of all payments and expenses made and incurred by them as Bursars during the same time; and in making or causing to be made such statements the said Bursars shall not be required to give a separate entry and description of every particular sum of money so received and paid by them, but only an abstract of the receipts and payments so made, arranged in such a manner as the Provost and Fellows may deem requisite and sufficient; and the said Bursars shall cause a copy of such statement to be sent to the Provost and every Fellow of the College; and such statement shall be read at a General Congregation, previously to the annual election of officers. The said Bursars shall further, on the application of any Fellow, submit for his inspection the full account of the receipts and expenses of the said College.

M.—Financial Arrangements and Emoluments.

Statute 1.—Payment for University Purposes.

[Objected to by the College.]

Statute 2.—Distribution of Revenues.

From and after the expiration or sooner determination of the interest to be regulated by the previously existing Statutes, the income of the College, after payment of the ordinary expenses (including all commons allowed by these Statutes), and of such stipends and salaries to the officers and servants of the College as shall have been fixed by the Provost and Fellows, shall be paid, applied, and distributed as follows, that is to say:—

To the Provost, his customary quarterly payments, and allowances for the expenses of his establishment, or such annual sum in lieu thereof as may be fixed by the Provost and Fellows in conformity with the Statute provided in that behalf.

To each of the Scholars of the College, such payments as are provided by the Statute relating to Scholars.

And subject to these payments, and to such payment (if any) as may become due to the University chest, to be applied to purposes for the benefit of the University at large, and to such other payments as in the judgment of the Provost and Fellows may be required for the purposes of the College, and

the management and improvement of its estates and property, there shall be paid—

To every Fellow, such sum as the Provost and Fellows shall fix for the dividend of the year.

To the Provost, a sum equal to four and a half times the amount of such dividend.

Provided that if any person shall have been Provost, Fellow, Scholar, or Officer of the College for a part only of the year, he shall be entitled to one-fourth part only of his annual stipend, dividend, or allowance for each quarter of a year, or part of a quarter greater than a half, during which he may have been Provost, Fellow, Scholar, or Officer.

In addition to their dividends, the Fellows (if in residence) shall be entitled to rooms and commons.

When and so soon as the interests to be regulated by the previously existing Statutes shall have expired, or otherwise determined to such an extent as may, in the judgment of the Provost and Fellows, enable the distribution hereinbefore prescribed to be partially carried into effect without prejudice to such of those interests as may not have expired or otherwise determined, the Provost and Fellows at a General Congregation shall from time to time, as circumstances will permit, bring into operation so much and such part or parts of the prescribed distribution as they may deem most expedient: Provided that the number of twenty-four Eton Scholarships shall be completed before any Open Scholarships are established.

Statute 3.—Provision for increasing the Number of Fellowships and Scholarships.

If it shall at any time appear to the Provost and Fellows that the revenues of the College produce a surplus beyond the amount required to afford to each Fellow an average income of 300 *l.* a year (exclusive of rooms and commons, but inclusive of all other allowances), they may determine at a General Congregation either that the number of Fellowships shall be increased (permanently or temporarily), or that such part as may be thought fit of such revenues shall be set apart and applied either in increasing the number of emoluments of the Scholarships within the College, or for such other College purposes as may be considered most advantageous to the College as a place of education, religion, and learning.

Provided that whenever the whole number of Forty-eight Scholarships, according to the intent of the first chapter of these

these Statutes, shall have been established, then in any subsequent augmentation of the number of Scholarships that may be made from time to time, due regard be had to any increase which may have been made in the number of Scholars in the College of King Henry the Sixth at Eton, but so that not more than one-half of the additional Scholarships established by any such augmentation shall be appropriated to the College of King Henry the Sixth at Eton.

N.—Miscellaneous.

Statute 1.—The Common Seal.

The Common Seal of the College shall be kept in some secure place, in a chest fastened with three locks, the keys of which shall be severally kept by the Provost, Vice-Provost, and Senior Bursar.

On any of them leaving College, he shall deposit his key with a deputy, and no one of the three shall have two keys in his keeping at the same time.

The Common Seal shall not be affixed to any writing or document, except in the presence of the Provost or Vice-Provost and six of the Fellows, and in pursuance of a resolution passed at a General Congregation.

Statute 2.—Against alienating the Possessions of the College.

It shall not be lawful to alienate or exchange the possessions of the College, except in cases where such alienations or exchanges are authorised by the Act 21 & 22 Vict. c. 44, or by any other Act of the Legislature. Exchanges also may be allowed of houses, mills, or ruinous buildings which require expensive reparations, as well as small pieces of land appurtenant to them. No lease shall be granted for life, nor beyond the term of 20 years, except in the case of houses and their appurtenances, when such term may be extended to 40 years, and no license for the alienation of any lease shall be granted by the College, unless by special license under the Seal of the College. No lease shall be granted to a Fellow or Scholar of any possession of the College, and no interest shall be conveyed by such lease to any Fellow or Scholar, upon pain of the immediate forfeiture of such Fellowship or Scholarship.

STATUTE 3.—Provision in case of Changes of Value of Money.

IF at any time it shall appear to the Provost and Fellows that, by reason of any change in the value of money, the specific sums fixed, or which may hereafter be fixed by or in virtue of any Statutes of the College, have become insufficient or excessive, and that such insufficiency or excess is productive of injustice or hardship, or is injurious to the general interests of the College, it shall be lawful for them, by an instrument under the Seal of the College, and with the sanction of the Visitor, for the purpose of correcting or obviating such injustice, hardship, or injury, to direct that such annual sums shall be increased or diminished as they shall think fit, and the increased or diminished sums shall thenceforth be substituted for and stand in the place of the sums originally fixed as aforesaid.

STATUTE 4.—Of the Construction of the Statutes.

IF any question shall arise in regard to the construction of any Statute of the College, it shall be decided by the Provost and Fellows. But whenever any such question shall arise, it shall be competent for the Provost, or for any three of the Fellows, if he or they are not satisfied with such decision, to refer the same to the Visitor, whose judgment thereon shall be final.

STATUTE 5.—Of the Visitor.

THE Visitor of the College shall be, as heretofore, the Bishop of Lincoln, who shall continue to possess all the powers and authorities given to him by any former Statutes.

Given under our Common Seal this Nineteenth day of April, in the year of Our Lord One thousand eight hundred and sixty.

L. S.

COPIES

COPIES of Two STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 24th of October 1860, marked G. 1. and H., in substitution of Two Statutes formerly made and objected to, for the future Government and Regulation of KING'S COLLEGE, in the said University of Cambridge.

KING'S COLLEGE.

WHEREAS we, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision for the "good government and extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," prepared a body of Statutes for King's College, in the University of Cambridge, to which we affixed our Common Seal on the nineteenth day of April, in the year of our Lord One thousand eight hundred and sixty: And whereas the Statutes marked G. 1. and H. respectively contained in the said body of Statutes have not taken effect:

Now we, the said Commissioners, do hereby, in execution of the powers vested in us by the said Act, in lieu and substitution for the said Statutes G. 1. and H., make the two Statutes following, that is to say—

G. 1.—CONDITIONS OF ELIGIBILITY OF FELLOWS.

THE Fellows shall be elected from among all members of the College who have taken the degree of Bachelor of Arts, Bachelor of Laws, or Bachelor of Medicine, at the regular time, unless prevented by illness or other grave cause, and whose standing after such degree does not exceed three years.

Provided that if, on any occasion, there shall be no duly qualified Candidate for a vacant Fellowship whom the Examiners shall consider of sufficient merit for election, such vacant Fellowship, notwithstanding anything in these Statutes contained, shall be reserved till the next election of Fellows; and if upon such second occasion there shall be no Candidate so qualified whom the Examiner shall consider of sufficient merit for election, then it shall be lawful for the Provost and Fellows to throw open such vacant Fellowship

for competition amongst all members of the University being otherwise duly qualified.

H.—Of Scholarships.

There shall be forty-eight Scholarships in the College.

Twenty-four of these Scholarships shall be appropriated to the Scholars of the College of King Henry the Sixth at Eton, and shall be called "Eton Scholarships." The election to such Scholarships shall continue to be held at Eton. Only such a number of Candidates shall be elected upon each occasion as will fill the actual number of Scholarships then vacant.

If on any occasion there shall be no duly qualified Candidate for a vacant Eton Scholarship whom the Examiners shall consider of sufficient merit for election, such Scholarship shall be reserved till the next election of Eton Scholars; and if upon such second occasion there shall be no Candidate so qualified whom the Examiners shall consider of sufficient merit for election, then such Scholarship shall for that turn be thrown open to competition amongst all boys then receiving education in Eton School, whether on the Foundation or not; and in default of any Candidate from the School whom the Examiners shall consider of sufficient merit to be elected, then such Scholarship shall for that turn be dealt with as if it had been an Open Scholarship, as hereafter defined.

The remaining twenty-four Scholarships shall be called Open Scholarships, and shall be given according to merit, subject to the conditions below specified, namely:—

That twelve of such Scholarships be open to all Candidates, being British subjects, who at the time of their examination shall not have completed their twentieth year, and the other twelve to all Undergraduates of the College.

The examination for such Open Scholarships shall take place at Cambridge, at such time and in such manner as shall be fixed by the Provost and Fellows.

The Electors to the Open Scholarships shall be the Provost, the Vice-Provost, one of the Mathematical Lecturers, and two of the Fellows, to be appointed annually by the Educational Council.

No person shall vote at the election for any Scholarship who has not taken part in the examination for the same.

The emoluments of all the Scholarships shall be Eighty pounds per annum each, with tuition fee; and the Eton Scholars shall have, in addition, rooms and commons free during residence,

dence, or a money payment in lieu thereof; and the like advantages shall be extended to the other Scholars of the College so soon as the circumstances of the College will permit.

All Scholars shall proceed to their degree of Bachelor of Arts or other Faculty at their regular time, except for sickness or other grave cause, to be approved by the Provost and Fellows, or in default of so doing shall lose their Scholarships within three months.

All Scholars shall be allowed to hold their Scholarships till they have attained the standing of Master of Arts, or until they become Fellows of the College, or of any other College, but no longer.

Given under our Common Seal this Twenty-fourth day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 24th of October 1860, under the 19 & 20 Vict. c. 88, for the future Government and Regulation of DOWNING COLLEGE, in the said University of Cambridge.

STATUTES OF DOWNING COLLEGE, IN THE UNIVERSITY OF CAMBRIDGE.

WE, the Commissioners appointed by an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for the good "Government and Extension of the University of Cambridge, "of the Colleges therein, and of the College of King Henry "the Sixth at Eton," do hereby, in execution of the powers given to us by the said Act, make the following Statutes for the future regulation of Downing College, in the University of Cambridge.

31. STATUTE

Statute I.—Of the Foundation of the College.

The College, called Downing College, in the University of Cambridge, shall consist of a Master, of two Professors, namely, a Professor of the Laws of England and a Professor of Medicine, and, when the number of Fellows and Scholars is completed as hereinafter provided, of at least eight Fellows, and at least ten Scholars.

Statute II.—Of the Publication and Construction of the Statutes.

Whereas it is highly expedient that those who are to live according to the regulations of any code of laws should have every facility which may enable them to become acquainted with those laws, it is ordained, as a fundamental law of this College, that the Statutes for the time being shall be printed, together with the Charter, and that a copy of both shall be given to every member and Officer on his first admission; and whenever there shall be any alteration or addition to the Statutes, the same shall be printed and distributed in like manner.

It is hereby declared that the word Member in these Statutes shall be understood to apply to the Master, Professors, Fellows, and Scholars only; and that the seniority of such Members, except for presentation to Benefices, shall be taken as follows: first, the Master; then the Professors, according to the date of their admission to their Professorships, and not according to any degree; then the Fellows, in like order and manner; and lastly, the Scholars, in like order and manner. The word Officer shall apply to the Chaplains, Tutors, Dean, Bursar, Steward, Father of the College, and Librarian.

If any question shall arise in regard to the construction of any Statute of the College, it shall be decided by the Master, Professors, and Fellows. But it shall be competent to any party affected by such decision to appeal to the Visitor.

Statute III.—Of the Master.

The office of Master is that to which the first rank and the greatest emoluments are assigned; and to that office shall belong the highest authority in the College, in the government, discipline, administration of the revenue, and all other matters whatsoever concerning the Society. In everything not otherwise specially provided for, his authority shall decide and

and direct; and he shall be at liberty to frame new regulations, not inconsistent with the Charter or Statutes, in every point left unsettled thereby; provided that all such regulations shall be made known to the resident Members who are members of the Senate, and if they are disapproved of by two-third parts of such Members, then such regulations shall be of no force.

The Master of the College shall be a Master of Arts, Master of Laws, Doctor of Medicine, or of some superior degree in the University, and not less than thirty years of age. He shall be a member of the Church of England, but shall not be required to be in Holy Orders. He shall not be required to be, or to have been, a Member of the College; he shall be a person who is distinguished for his attainments in theology, law, medicine, literature, or science, and in the judgment of the electors best qualified by his piety, discretion, and knowledge of affairs to secure the good government of the College as a place of education, religion, and learning.

He shall be elected by the Professors and Fellows of the College in manner following:

On the day succeeding that upon which the vacancy of the office of Master becomes known to him, the Vice-Master, or in his absence the senior Member in residence, shall call together the other Electors who are in College, and they shall then fix the day and hour for the election of a new Master, such day to be not less than three nor more than six weeks from the vacancy, unless the vacancy shall happen during the long vacation, in which case these two periods shall begin to run from the first day of the ensuing Michaelmas Term: notice of the vacancy and of the day and hour for the election shall be given to all the Electors who are absent. On the day and at the hour fixed, the Electors shall assemble in the College Chapel, where the Vice-Master, or in his absence the senior Elector present, and after him the other Electors in their order, shall make the following declaration:—"I, *M. N.*, "do solemnly declare that I will choose as Master the person "who is in my judgment best qualified, according to the "Statutes, to secure the good government of this College as "a place of education, religion, and learning." After this declaration has been made by each Elector in turn, the Vice-Master and two senior Electors present, or in the absence of the Vice-Master, the three senior Electors present, shall stand in scrutiny, and first write their own votes on separate papers, and afterwards receive the votes, similarly written, of all the other Electors. If, upon examination, it appears that a ma-

jority of the votes of all the Electors present are given for one person, the junior of the three scrutineers shall read the several votes, after which the Vice-Master, or in his absence the senior Elector present, shall pronounce such person duly elected Master of the College. If at this first scrutiny there is no such majority of votes given for one person, the scrutineers shall proceed to make a second scrutiny in the same manner as before, and the person, if any, who on this second scrutiny has the majority of the votes of all the Electors present shall be pronounced to be elected Master; and if at this second scrutiny the whole of the votes shall be equally divided between two persons, that person shall be pronounced to be elected Master for whom the Vice-Master, or in his absence the senior Elector present, shall give his casting vote. If, however, at this second scrutiny no election shall be made, the scrutineers shall proceed to a third and final scrutiny, when that person shall be pronounced elected who has the greatest number of votes, whether they form a majority of the whole number of votes or not; and in case there be no such greatest number of votes, in consequence of an equality of votes given to the two or more persons who have the most votes, then that one of the two or more such persons shall be elected for whom the Vice-Master, or in his absence the senior Elector present shall give his casting vote.

Immediately after such election, it shall be notified by the Vice-Master or the Senior Elector to the person so chosen, who shall, if he accepts the said office, take it upon himself in manner following:—He shall present himself to the Vice-Chancellor of the University, and make this declaration:

"I, *A. B.*, do solemnly declare that I am *bonâ fide* a "Member of the Church of England, and I do sincerely "promise that I will truly and faithfully execute the office of "Master of Downing College, and discharge the duties thereof "according to the best of my judgment and ability."

And in case the person elected shall refuse or neglect for fourteen days to make the said declaration, his election shall be utterly void, and thereupon proceedings shall be taken, as if a vacancy had occurred in the Mastership, at the time of his refusal, or at the expiration of the fourteen days, as the case may be.

In case a Master shall not be elected as by this Statute provided, within six calendar months from the vacancy, then the appointment of the Master from among all the persons qualified as above, shall be vested in the Lord High Chancellor

cellor as Visitor of the College, on behalf of the Crown: but in all cases in which the Lord Chancellor, acting as Visitor, shall have annulled as informal the election of the Master, the power of election shall revert to the Electors named in these Statutes on the conditions above stated. And the times hereinbefore laid down as running from the vacancy in the Mastership shall begin again to run from the time of the Visitor's sentence being pronounced, as if the vacancy had then occured.

In case any Master shall misconduct himself in any part of his office, he shall be suspended or removed by the Visitor, if he shall think fit, on complaint of three of the Members, who are also Members of the Senate.

In case of the absence of the Master, or of his inability to act, he shall appoint a Member of the College, in residence, who is also a Member of the Senate, to be Vice-Master, and to act in all things for him, as his deputy, during such absence or inability, with the same authority as the Master himself. In case of the inability or neglect of the Master to appoint a Vice-Master, and during the vacancy of the Mastership, in case there shall be no Vice-Master at that time, then the resident Member who was last Vice-Master, or in default of such person, then the Senior resident Member, shall be Vice-Master during such vacancy, inability, or neglect.

The Master shall be resident in College during two-thirds of each term. In case he be absent for more than one term in the course of any academical year, without grave cause to be approved by the five Senior Members, or the major part of them, he shall pay to the Vice-Master one-fourth of a share. And if such absence be repeated during a second academical year, without due cause to be approved as aforesaid, the said Senior Members, or the major part of them, shall make an appeal to the Visitor to impose such penalties on the Master, and to make such provisions for the payment of a Vice-Master, as the Visitor shall think fit.

And further, in case of prolonged incapacity of the Master from any cause to fulfil the duties of his office, application shall in like manner be made to the Visitor to provide for the due appointment and remuneration of the Vice-Master.

Statute IV.—Of the Professors.

Within one calendar month after a vacancy shall happen in either Professorship, the Master, or in his absence the Vice-Master, or in default of the Vice-Master, the Senior resident

Member of the College, shall make it known to the Electors. The Electors shall be the Lord Archbishop of Canterbury, the Lord Archbishop of York, and the Masters for the time being of St. John's College, Clare College, and Downing College. Within two calendar months from such vacancy some one of the Electors shall certify to the Master, Vice-Master, or Senior resident Member, by an instrument in writing signed by the Electors, or the major part of them, the name of the person whom they have elected to the vacant Professorship. And if the Electors, or the major part of them, shall not agree in the election of a Professor within the space of time fixed for that purpose, then the appointment of such Professor from among persons qualified as hereinafter specified shall be vested in the Lord High Chancellor, as in the case of the Mastership, and with the same restriction. The Law Professor shall be, at the time of his election, a Graduate in Law or Arts of one of the English Universities, of ten years' standing from his matriculation, and also a Barrister-at-law. The Medical Professor shall be, at the time of his election, a Graduate in Medicine of one of the Universities of the United Kingdom, and not less than twenty-five years of age.

And it is hereby declared that no Master of this College shall be eligible to either of the two Professorships; and if either Professor shall ever be elected to the Mastership, or to the other Professorship, or to any other Professorship in the University of Cambridge, and shall accept the same, he shall *ipso facto*, vacate his former Professorship.

The Professors or their deputies shall read lectures, or courses of lectures, in their several departments, according to schemes to be approved from time to time by the Board of Legal and of Medical Studies respectively. In case a Professor shall in any year be prevented, by unavoidable impediment, from delivering such lectures, he shall provide a deputy, with the approval of the Vice-Chancellor and the Master, who shall read the said lectures in his stead. If, at the end of that academical year, he shall still be incapacitated from lecturing, he shall, on or before the tenth of the following October, provide a deputy, with the approval of the Vice-Chancellor and the Master, to read lectures in his stead. In default of such appointment of a deputy, the Master with the approval of the Vice-Chancellor shall, between the fifth of November and the division of the Michaelmas Term, nominate a deputy, and assign to him such remuneration, not exceeding one-half of the Professor's stipend, as to the Vice-Chancellor and Master shall seem just and fitting.

Each

Each of the Professors shall be resident in College during the major part of two out of the three terms of the academical year. In case, in any year, the Professor shall fail to reside as hereby provided, or shall wilfully abstain from delivering such lectures as aforesaid (without due cause to be approved by the five Senior Members, or the major part of them), he shall forfeit half his stipend; and if such absence or wilful default be repeated during a second academical year, the said senior members, or the major part of them, shall make an appeal to the Visitor to impose such penalties on the Professor as the Visitor shall think fit.

In case any Professor shall misconduct himself in any part of his office, he shall be suspended or removed by the Visitor, if he shall think fit, on complaint of three of the Members of the College, who are also Members of the Senate.

Immediately after the appointment of a Professor, it shall be notified by the Master or Vice-Master to him, and if he accepts the said office he shall take it upon himself in manner following:—He shall present himself to the Master, or, in his absence, to the Vice-Chancellor of the University, and shall make this declaration:—

> "I, *A. B.*, do solemnly declare that I am *bonâ fide* a "member of the Church of England, and I do sincerely "promise that I will truly and faithfully execute the "office of Professor of (*Law* or *Physic*) in Downing "College, and discharge the duties thereof according to "the best of my judgment and ability."

And in case the person elected shall refuse, or neglect for fourteen days, to make the said declaration, his election shall be utterly void, and thereupon proceedings shall be taken as if a vacancy had occurred in the Professorship, at the time of his refusal, or at the expiration of the fourteen days, as the case may be.

Statute V.—Of the Fellows.

Of the eight Fellowships, two shall be termed "Resident "Fellowships," and six "Non-resident Fellowships." All persons shall be eligible to Fellowships who have taken a degree in Arts, Law, or Physic in one of the Universities of Cambridge or Oxford, and who are not above the age of thirty years.

Each candidate for a Fellowship shall produce a certificate of good moral character, signed by the Master and Tutor of

his College, and shall make a declaration in writing that he is *bonâ fide* a member of the Church of England.

The Electors shall be the Master, Professors, and Fellows, and the election shall be conducted in such manner as they shall from time to time appoint. If it shall be conducted by examination, then those Members only who have taken part in the examination shall be Electors.

The Resident Fellowships are designed for persons who are to take part in the tuition of the College; and the Resident Fellows, in respect of their Fellowships, shall be subject to the same regulations with regard to residence as the Professors.

Of the Resident Fellows one at least shall be a clerk in Holy Orders, but in case of a vacancy occurring, a person not in Holy Orders may be elected a Resident Fellow, though no Resident Fellow be at that time in Holy Orders; provided that within six months from the day of election one of the Resident Fellows shall enter into Holy Orders. In case no Resident Fellow shall do so within that period the Resident Fellowship last filled up shall be *ipso facto* vacant.

The Non-resident Fellowships are designed for persons engaged in the study or active pursuit of the professions of Law or Physic, and no residence shall be required of such Fellows in respect of their Fellowships, except for the purposes hereinafter mentioned.

It shall be the duty of every Fellow to be present at the annual College audit; and if any Fellow fails to be present at audit during three successive years, it shall be competent for the Master, Professors, and Fellows, to withhold the payment of his stipend for such time as they may think fit, or to deprive him of his Fellowship.

And whereas the presence and co-operation of the Non-resident Fellows is of importance for conducting the Fellowship examinations, it shall be competent for the Master to require two of the Non-resident Fellows to attend and act as examiners, such Fellows being selected with reference to the special subjects of examination, whether legal or medical, in the order of their seniority; and any Fellow so called upon shall be required to take part in the examination, under penalty of forfeiting one-fourth of his stipend.

Every person elected to a Fellowship shall make the following declaration in the presence of the Master or Vice-Master, and one or more of the Electors, in the Chapel:—

"I, *A. B.*, do sincerely promise that I will well and "faithfully discharge the duties of a Fellow of Downing "College

"College, according to the best of my judgment and "ability."

Fellows shall vacate their Fellowships by election to the Mastership, or to a Professorship of the College, or by becoming Foundation Members of any other College.

The Resident Fellowships may continue for life, but shall be vacated by marriage, or by institution to an ecclesiastical benefice beyond the precincts of the University, or by election to a Non-resident Fellowship, or by refusing to accept the office of Tutor, or by neglecting to perform the duties of that office pursuant to these Statutes; provided that if any Resident Fellow has held the office of Tutor for eight years he shall be entitled to retain his Fellowship, notwithstanding his marriage, after the expiration of that term; he shall not, however, in that case retain his Fellowship for more than eighteen years from his election; provided also that no more than one Resident Fellow shall at any one time be married.

The Non-resident Fellowships shall be tenable for twelve years, and shall not be vacated by marriage, but shall be vacated by entrance into Holy Orders at any time within the first six years after election, or by becoming entitled for life, or for a larger estate or interest, to an income exceeding 500*l.* per annum, or by election to a Resident Fellowship.

Fellows who are Bachelors of Arts, or Bachelors of Laws, shall proceed to the degree of Master of Arts or Master of Laws; and Fellows who are Bachelors of Medicine shall proceed to the degree of Doctor of Medicine as soon as they are respectively of standing to take such degrees.

Fellows not so proceeding to their degrees in due course (unless prevented by illness, or other grave cause to be approved by the Master, Professors and Fellows) shall forfeit their Fellowships.

Statute VI.—Of the Scholars.

All vacancies in the Scholarships shall be filled up within one year, from among the Students of the College, or (if the Master, Professors, and Fellows think fit) from among Students of the University, who shall be of such standing as the Master, Professors, and Fellows shall from time to time determine, and who shall produce testimonials satisfactory to them.

The election shall be decided between the candidates qualified as aforesaid, entirely by examination. The Electors to the Scholarships shall be the Master, Professors, and Resident Fellows, and such one or two Non-resident Fellows as the Master, Professors, and Resident Fellows shall from time to

time, if they think fit, require to attend; provided that no Member who has not taken part in the examination shall vote or interfere at the election.

The subjects of examination shall be the Greek and Latin languages, mathematics, and such other learning as the examiners shall think proper.

Every person elected to a Scholarship shall reside in College two-thirds of each Term, until he shall have kept the number of terms requisite for a degree in Arts, Law, or Medicine. And in default of residence by any Scholar, unless for sickness or other weighty cause, to be approved by the Master, his Scholarship shall be *ipso facto* vacant.

It shall be lawful for the Master, Professors, and Fellows, to offer, from time to time, any number of Minor Scholarships for competition amongst persons who have not been entered at any College in the University, or who have not resided one entire term in any such College; but such Minor Scholars shall not be on the Foundation.

Every person elected to any Scholarship or Minor Scholarship, if not already a Student of the College, shall forthwith procure admission into the same, and shall receive no emoluments from his Scholarship or Minor Scholarship until he shall have commenced residence in the University as a Student of the College.

The Foundation Scholarships shall be tenable until the Scholars are of standing to take the degree of Bachelor of Arts; and it shall be lawful for the Master, Professors, and Fellows, in any case which shall appear to them of special merit, to prolong the tenure of any such Scholarship until the holder thereof is of standing to take the degree of Master of Arts, or for some shorter period. In case of a Scholarship being vacated by death, resignation, or otherwise, the Master, Professors, and Fellows shall assign the residue of such Scholarship to some deserving Student of the College.

The Minor Scholarships shall be tenable for such periods, and subject to such further regulations in all other respects as the Master, Professors, and Fellows shall think fit.

Statute VII.—Removal of Members and Discipline of the College.

If the Master, or any Professor or Fellow, shall openly secede from the Church of England, the Visitor shall upon representation to that effect from the Master, Professors and Fellows of the College (other than the Member so seceding), or

or the major part of them, with all convenient speed proceed to inquire into the case, and if the fact be established, shall deprive such Member of his Membership.

If the Master, or any Professor or Fellow, shall be convicted by a court of competent jurisdiction of any crime, or shall be guilty of disgraceful conduct, rendering him unfit to be a Member of the College, the Members of the College (other than the Member who has so misconducted himself), or the major part of them, shall bring such misconduct under the notice of the Visitor, by petition in writing, who shall upon proof of the charge, deprive the Member so offending of his Membership, or inflict such other punishment upon him as the Visitor in his discretion shall think fit.

If any Fellow shall pertinaciously offend against the discipline of the College, or shall wilfully violate or neglect to comply with any of the Statutes of the College for the time being, it shall be the duty of the Master, on proof of such misconduct, to admonish such Fellow, and, if necessary, to repeat such admonition; and if, notwithstanding such repeated admonition, such Fellow shall contumaciously persist in his misconduct, it shall be competent for the Master, Professors, and Fellows (other than the Fellow whose conduct is impugned), to suspend such Fellow from the enjoyment of his Fellowship for one year; and if he shall still continue contumacious, to deprive him altogether of his Fellowship: Provided that no such sentence of suspension or deprivation be passed without the concurrence of at least two-thirds of the whole body of the Master, Professors, and Fellows, exclusive of the Fellow so offending; and provided also that any such sentence of suspension or deprivation shall be liable to be reversed by the Visitor of the College on appeal being made to him, or to be varied by him at his discretion.

All persons *in statu pupillari* shall show due reverence and obedience to the Master and officers of the College; they shall conduct themselves in a quiet and orderly manner within the College, shall observe the Statutes, and shall conform to all such orders and regulations as may be made by the Master, or by the Master, Professors, and Fellows from time to time, for the good government of the College. If any such person (not being a Fellow of the College) shall not observe the Statutes, or the orders and regulations above referred to, or shall be guilty of any offence contrary to discipline or good order, or tending to bring scandal upon the College, he shall be punished by the Master, or in his absence, by the Vice-Master, or by the Dean, in such manner (short of removal

from the College) as the offence may appear to deserve. The penalty of temporary or final removal from the College, or, in the case of a Scholar, of deprivation of his Scholarship, or temporary forfeiture of the emoluments and advantages thereof, may be inflicted by the Master, Professors, and Fellows in residence.

Statute VIII.—Of the Chaplains.

There shall be one Chaplain, or two, according as the state of the College shall require and the Master shall think fit, appointed for the performance of Divine Service within the College. Chaplains shall be nominated by the Master, and shall be in Holy Orders at the time of their appointment. They shall have taken a degree at the University of Cambridge or Oxford, and be persons of good moral character. The Master shall give the preference to a Fellow of the College, if qualified for the office; next to those who have formerly been Fellows; and next to such persons, as are or have been Scholars.

They shall hold their offices during the pleasure of the Master, and in the discharge of their functions shall be guided by his directions, provided the same be consistent with the Statutes of the College, and University, and with ecclesiastical authority and discipline.

Statute IX.—Of the Dean.

There shall be one Officer chosen from among the Professors and Fellows who are members of the Senate, to be called the Dean. He shall be appointed by the Master, and hold office during his pleasure. The duty of the Dean shall be to attend Divine Service, and to enforce the attendance and proper demeanour of the Members of the Society who are under the degree of Master of Arts, and of the Students, according to the direction of the Master, and the regulations of academical discipline. The Dean shall also, under the authority of the Master, take cognizance of the absence of all Students of the College, under the degree of Master of Arts, during the hours of the night at which the gates are ordered to be shut.

The Dean shall be required to reside in College, as long as any Students below the Degree of Master of Arts are resident; and he shall not be absent during such period without leave of the Master; but it shall be lawful for the Dean with the approbation of the Master, to appoint as his deputy a member of the Senate who is resident in College.

Statute

Statute X.—Of the Bursar.

There shall be one Bursar appointed annually, at the audit, by the Master, Professors, and Fellows, from among the Members of the College. The duty of the Bursar shall be to manage the property and collect all the income of the College, and to place the same, immediately after the receipt thereof, in a bank to be approved of by the Master, Professors and Fellows. He shall make all payments on behalf of the College, including the stipends and allowances of its Members and Officers. He shall keep proper books of account, in which all his receipts and payments as Bursar shall be entered; and he shall account regularly with the College, at the annual audit, for all such receipts and payments. He shall, before he enters into his office, give security for the performance of these duties in a bond, himself in 2,000 *l.*, and two substantial securities in 1,000 *l.*, each. The Bursar shall be required to defray out of his stipend all his travelling and other expenses, but shall be allowed the expense of such professional assistance as he may reasonably require, and as the Master, Professors, and Fellows shall sanction. Every Bursar shall reside in the University, during his continuance in office, the major part of the Lent, Easter and Michaelmas Terms; or for a space of time (continually or collectively) equal in each year to the major parts of such terms taken collectively; but residence on the College estates for any period not exceeding six weeks shall, in every respect, be considered as equivalent to residence in College; and of such residence on the estates he shall himself give account at audit. In case of wilful default in the performance of his duties he shall forfeit the whole or such part of his stipend as the Master, Professors and Fellows (other than the Bursar) or the major part of them shall think fit, without prejudice to their other remedies.

Statute XI.—Of the Tutor.

There shall be one or two Tutors appointed by the Master from among the Professors and Fellows. They shall have such duties and powers as are ordinarily assigned to other Tutors of Colleges; but, in the exercise of their functions, they shall be subject to the control and direction of the Master. With this restriction, they shall have the disposition of rooms in the College among their pupils; and they shall account with the Bursar, at the annual audit, for the rent of all the rooms occupied by their pupils not entitled to enjoy rooms rent-free.

A Tutor, if unmarried, shall reside in the College, and, if married, in the University, for two-thirds of each term, and for such longer time as the Master shall think requisite for the purposes of tuition. No Tutor shall receive any other compensation for his services as Tutor than the payments commonly made by his pupils, according to the Statutes and usages of the University.

Every Tutor may, with the approval of the Master, employ any person or persons, being members of the University, of the Degree of Bachelor of Arts at the least, to assist him in giving lectures; such Lecturer receiving no payment or reward but from the Tutor.

Every Tutor may hold his office as long as he continues a Member of the College, and demeans himself well and faithfully in his office; but for any misbehaviour therein, or other reasonable cause, he shall be removed from his office by the Master, subject to an appeal to the Master, Professors, and Fellows.

Every resident Fellow shall be bound to accept the office of Tutor, if appointed thereto by the Master, and to continue to discharge its duties for a term of eighteen years, if he be required by the Master to do so, and if he continue to hold his Resident Fellowship during that or any longer period.

Statute XII.—Of the Librarian.

There shall be in the College a Library, for the use of Members and Students of the College.

For the constant supply of books, and for the safe custody thereof, there shall be a Librarian appointed annually by the Master from among the Professors and Fellows. He shall keep the keys of the Library, and have the charge of everything therein contained.

The Master, Professors, and Fellows, in residence may, from time to time, frame such regulations for the Library as they shall see fit.

Statute XIII.—Of the Steward.

There shall be a Steward appointed annually by the Master, from among the Professors and Fellows, to direct everything which relates to the commons and sizings to be served in the hall, and the wine and other articles provided in the Combination Room. He shall make all payments in respect of such commons and sizings to the Cook and Butler of the College, at such times as shall be appointed by the Master, and shall within four months receive the same from the Tutor for all his

his pupils and from all other persons who have been in commons.

The Steward shall reside, during his continuance in office, as long as there are any persons in commons resident; and he shall not be absent during such period without leave of the Master; but it shall be lawful for him, with the approbation of the Master, to appoint any one of the Professors or Fellows to act as deputy Steward.

Statute XIV.—Of the Father of the College.

There shall be an Officer called the Father of the College, appointed by the Master. His duty shall be to present Members of the College for Degrees, and to perform the various functions required of Fathers of Colleges by the Statutes and Regulations of the University.

Statute XV.—On the Accumulation of Offices.

It shall not be lawful for the Master to appoint himself to any office, while there is any other Member willing and qualified, according to the Statutes, to hold such office. And no Member holding two offices for which an official salary is paid shall hold a third such office whilst there is another Member willing and qualified to hold the same.

The appointment of such of the above offices as are annual shall be made at the audit; but in case of a vacancy happening in the course of the year, as well as in the case of a vacancy in one of the said offices not being annual, the appointment shall be made within three months of the vacancy by the Master, or, in default of the Master so making it, then within four months of the vacancy, by the Vice-Master; and in his default the appointment shall lapse with successive intervals of a month to the senior Members in succession.

Statute XVI.—Of Divine Service.

Divine Service shall be performed at such times and in such manner as the Master, Professors, and Resident Fellows shall direct, consistently with the laws of the realm and the Statutes and usages of the University. It shall be lawful for the Master, Professors, and Resident Fellows to make such regulations as they shall think fit for requiring or dispensing with attendance at the same, and to vary such regulations from time to time.

Statute XVII.—Of the Revenues.

The whole revenue of the College, including any amount that may accrue by the determination or diminution of the annual payments now made to the Building Fund under the direction of the Court of Chancery, shall be applied after defraying all taxes, rates, and the expenses of all necessary or proper repairs or improvements of the College buildings and estates and all other lawful or proper charges or payments due from the College, first to paying the commons of the Members and all other necessary or proper expenses of the College: the residue shall be divided into equal shares and distributed, so that the Master shall receive four shares and a half, each of the Professors two shares, each of the Fellows one share, and in addition the Bursar one share, the Dean, Librarian, and Steward each one-sixth of a share, each Chaplain one-fourth of a share, the Librarian one-fourth of a share (for the purchase of books), and each of the Scholars and Minor Scholars respectively, such part of a share as the Master, Professors, and Fellows shall from time to time determine; provided that when the full number of Fellows is completed, four shares shall be divided amongst the Scholars and Minor Scholars in proportions, to be determined as aforesaid: provided also that the Foundation Scholars shall receive not less than fifty pounds per annum each.

Provided further, that if such shares as aforesaid shall in any year exceed two hundred pounds each, then two hundred pounds only shall be paid in respect of each such share, and it shall be lawful for the Master, Professors, and Fellows, out of the surplus revenue, to augment, either temporarily or permanently, the number of Fellows or Scholars, to increase the official salaries, or to employ it in whatever manner they may think most conducive to the honour and welfare of the College.

Statute XVIII.—Of the Payment of Stipends.

The stipends of the Members shall be payable on the 1st of February and 1st of August in each year. Provided that if the Mastership, Professorship, or a Fellowship, Scholarship, or Minor Scholarship shall terminate on one of the above days, there shall be paid in respect thereof the stipend falling due on that day only, but if it shall terminate in the interval between two such days, then there shall be paid in respect thereof the stipend falling due on the next half-yearly day of payment,

payment, and the stipend falling due on the payment-day next but one after the vacancy, shall belong to the person succeeding to such Mastership, Professorship, Fellowship, Scholarship or Minor Scholarship, whether his appointment be made before or after that day.

The official salaries and commons shall be paid at the audit.

Statute XIX.—Of Leases, and of the College Seal.

No lease shall be granted or renewed, nor any other conveyance executed, except at a meeting of the Master, Professors, and Fellows.

The College Seal shall be kept by the Master under two different keys, one of which shall be in his custody, and the other in the custody of the Bursar. For other purposes besides the execution of leases and conveyances, or any application to the Queen in Council, it may be used by the Master, Professors, and Fellows in residence.

No money, or other valuable thing by way of fine, foregift, or other consideration, shall be demanded or received by this College, or any Member of it, for the grant or renewal of any lease of any lands, tenements, or hereditaments belonging, or which may in future belong, to the College; and any Member proposing such demand, or receiving any part of such money or other consideration, shall *ipso facto* forfeit his place and office in the College. And it is hereby provided, under like penalties, that no lease of such property shall be made to any Member or Officer of the College, or to any person in trust for him.

Statute XX.—Of Benefices.

As soon as any ecclesiastical benefice in the gift of the College shall become vacant, the Master, or, in his absence, the Vice-Master, or in his absence, the Senior Member in residence, shall within one week after the vacancy has come to his knowledge, cause written notice of such vacancy to be hung up in the hall, and a notice of the day (being not less than one calendar month, nor more than four calendar months, from the day of the vacancy) on which the College will present to the benefice. The Master, or in his absence the Vice-Master, or in his absence the Senior Member in residence, shall also, within one week after the vacancy has come to his knowledge, intimate the vacancy to the person entitled in seniority to the offer of the presentation, and if he shall refuse,

or, for the space of six weeks, omit to signify his readiness to accept the same to the Master or Vice-Master, then a second intimation shall in like manner be made within one week from such refusal or the termination of the six weeks, to the person next entitled in seniority to the presentation, and so on. On the day appointed in the notice, the Master, Professors, and Fellows in residence shall meet, and unless for some grave cause, of which the Master, Professors, and Fellows shall be judges, shall present the person who has signified his readiness to accept the presentation.

For presentation to benefices the order of seniority shall be as follows:

First, the Resident Fellows, according to the date of their admission to their Fellowships; secondly, the Non-resident Fellows in like order. In case no Member of the College is willing to accept such benefice, then it shall be presented either to a Chaplain or to some person in Holy Orders who has formerly been member of the College, and who had not, at the time of the vacancy, any benefice of double the actual value of a Fellowship.

Statute XXI.—Of Admission.

The Master, Professors, and Fellows in residence shall have power to make, from time to time, such regulations as they may think fit respecting the examination and admission of Students of the College, and also as to their instruction and discipline, consistently with the Statutes and usages of the University.

Statute XXII.—Of Residence.

There shall be entered in a book to be kept for that purpose the days on which every Member or Student of the College shall come into or go out of residence; and the period of his residence shall be calculated from such entries only, both days inclusive; provided that if any person is put out of commons as a punishment, the time during which he is so out of commons shall be deducted from the period of his residence.

Statute XXIII.—Of Lodges and Rooms.

There shall be a Lodge set apart for the Master, and one for each of the Professors, which, as well as the apartments of the Fellows, and such of the Scholars as the Master, Professors,

fessors, and Fellows shall from time to time determine, shall be enjoyed by them respectively rent free; provided that no Fellow or Scholar who is not ordinarily resident shall be allowed to occupy rooms in College.

The Fellows shall have the choice of apartments according to seniority.

The rents of rooms occupied by the Students shall be received by the Bursar from the Tutor, and accounted for as part of the revenues.

The Chaplain shall be entitled to rooms rent free, although they may not be Members of the College. No married Fellow shall be entitled to reside in College.

Statute XXIV.—Of Commons.

The Master shall be entitled to commons during his residence to the amount of five shillings, the Professors to the amount of three shillings and sixpence each, the Fellows to the amount of two shillings and sixpence each, and so many of the Scholars as the Master, Professors, and Fellows shall from time to time determine, to the amount of one shilling and sixpence each, for every day of their respective residences.

The Chaplains shall be at liberty to place themselves in Fellows' commons, when and for so long a time as they please, paying for the same at the usual rate.

Statute XXV.—Of the College Servants.

There shall be retained in the service of the College one Butler, one Cook, one Porter, and one Gardener. They shall be appointed by the Master, and removable by him at pleasure. They shall be employed according to his directions in the service of the College, in the employments usually appertaining to their respective places, and shall receive such wages and such other profits or advantages as the Master, Professors, and Fellows shall from time to time appoint. No additional servants shall be appointed to such places, nor shall any new places for College servants be established, unless with the consent of the Master, Professors, and Fellows.

Statute XXVI.—Provision in case of Changes in Value of Money.

If at any time it shall appear to the Master, Professors, and Fellows, that by reason of any change in the value of

 money,

money, the specific sums fixed by these Statutes, or which may be hereafter fixed, in exercise of any power given by these Statutes, have become insufficient or excessive, and that such insufficiency or excess is productive of injustice or hardship, or is injurious to the general interest of the College, they may, by an instrument under the Seal of the College, and with the sanction of the Visitor, for the purpose of correcting or obviating such injustice, hardship, or injury, direct that such annual sums shall be increased or diminished as they shall think fit, and the increased or diminished sums shall thenceforth be substituted for and stand in the place of the sums originally fixed as aforesaid.

Statute XXVII.—College Meetings.

The Master shall have power to summon meetings of the Master, Professors, and Fellows, or of the Master, Professors, and Fellows in residence, whenever he shall think proper, and shall be required to do so within 21 days (not including days of vacation) if requested in writing, in the former case by three of the Professors and Resident Fellows and three of the Non-resident Fellows, and in the latter case, by three of the Professors and Resident Fellows. To the former of such meetings all the Non-resident as well as all the Resident Fellows shall be summoned, and three clear days' notice of such meeting shall be given by letters addressed to the residences of the Fellows as entered by them at the College butteries. But meetings of the Master, Professors, and Fellows in residence may be summoned without such notice. Where in these Statutes the Master, Professors, and Fellows are spoken of it shall be understood that all acts to be done by them may be done by the majority of the Master, Professors, and Fellows present at a meeting duly summoned as aforesaid; and all acts required to be done by the Master, Professors, and Fellows in residence may be done by a majority of the Master, Professors, and Fellows in residence present at a meeting summoned as aforesaid. At all meetings the Master or in his absence the Vice-Master or Senior Member shall preside, and shall have besides his own vote a casting vote.

The annual audit shall take place on the third Thursday in March, or on such other day as the Master, Professors, and Fellows shall from time to time appoint.

Statute

Statute XXVIII.—Preservation of Rights of existing Fellows.

The emoluments, tenure of office, and other interests of a pecuniary nature of the present Master, and of all Professors and Fellows elected before the confirmation of these Statutes by Her Majesty in Council, shall be regulated by the previously existing Statutes: provided that if the Master or any such Professor or Fellow shall elect to be placed in these respects under the operation of the present Statutes, it shall be lawful for him to signify such election to the Master, Professors, and Fellows by writing under his hand, and his rights in such respects shall be thenceforth governed by the present Statutes accordingly.

Statute XXIX.—Honorary Fellows.

The Master, Professors and Fellows may, at a General College Meeting, and by a vote in which not less than two-thirds of the whole number shall concur (the Master's vote being reckoned as two), elect any Professor, Public Lecturer, or other person distinguished for literary or scientific merits, though he may not be a Member of the College, or of the University, to an Honorary Fellowship. Such Honorary Fellows shall possess no voice or authority in the College, nor be entitled, by virtue of such Fellowship, to any dividend or option of College livings, or be eligible to the Mastership, but they shall be entitled to have their names kept on the boards of the College, free of expense, and they may enjoy such other privileges and advantages as the Master, Professors and Fellows may from time to time determine.

Honorary Fellowships shall be tenable for such time and under such conditions as the Master, Professors and Fellows shall think fit.

Statute XXX.—Power of bringing the New Statutes gradually into Operation.

When and so soon as the interests to be regulated by the previously existing Statutes shall have expired or otherwise determined to such an extent as may, in the judgment of the Master, Professors and Fellows, enable the distribution hereinbefore described to be partially carried into effect, without prejudice to such of those interests as may not have expired or otherwise determined, the Master, Professors and Fellows shall from time to time, as circumstances will permit, bring

into operation so much and such part or parts of the prescribed distribution as they shall deem most expedient.

Provided that the five additional Fellows by these Statutes directed to be elected in addition to the three already existing shall be elected as follows: that is to say, one in the fifth year at the furthest after the confirmation of these Statutes by Her Majesty in Council, and one at least in every subsequent alternate year, until the full number of eight shall be completed.

Given under our Common Seal this Twenty-fourth day of October, in the year of our Lord One thousand Eight hundred and sixty.

L. S.

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d of October 1860, under the 19 & 20 Vict. c. 88, for the Repeal of the previously existing Statutes of ST. CATHERINE'S COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College "of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future regulation of St. Catherine's College, in the University of Cambridge.

Repeal of previously existing Statutes.

FROM and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of St. Catherine's College, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years

years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision for the good Government "and Extension of the University of Cambridge, of the Col- "leges therein, and of the College of King Henry the Sixth "at Eton," shall be of any force and effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College elected before the date of an Order of Her Majesty in Council, bearing date the Tenth day of May, in the year of Our Lord One thousand eight hundred and sixty.

And save and except so much of the said former Statutes as relate to the powers and functions of the Visitor thereof, which shall be and remain in force as heretofore.

From and after the approbation of this Statute by Her Majesty in Council, all the former Statutes of the College shall stand and be repealed, except and subject as aforesaid.

Given under our Common Seal this Twenty-third day of October, in the year of our Lord One thousand eight Hundred and sixty.

L. S.

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d of October 1860, under the 19 & 20 Vict. c. 88, for the Repeal of the previously existing Statutes of SIDNEY SUSSEX COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King

"Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future regulation of Sidney Sussex College, in the University of Cambridge.

Repeal of previously existing Statutes.

From and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of Sidney Sussex College, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision for the good Government "and Extension of the University of Cambridge, of the "Colleges therein, and of the College of King Henry the "Sixth at Eton," shall be of any force and effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College elected before the date of an Order of Her Majesty in Council, bearing date the first day of August, in the year of our Lord One thousand eight hundred and sixty.

And save and except so much of the said former Statutes as relate to the powers and functions of the Visitor thereof, which shall be and remain in force as heretofore.

From and after the approbation of this Statute by Her Majesty in Council, all the said former Statutes of the College shall stand and be repealed, except and subject as aforesaid.

Given under our Common Seal this Twenty-third day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPY

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d of October 1860, under the 19 & 20 Vict. c. 88, for the Repeal of the previously existing Statutes of PEMBROKE COLLEGE.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future regulation of Pembroke College, in the University of Cambridge.

Repeal of Previously Existing Statutes.

FROM and after the approbation of this Statute, by Her Majesty in Council, none of the Statutes of Pembroke College, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act "to make further provision for the good Government and "Extension of the University of Cambridge, of the Colleges "therein, and of the College of King Henry the Sixth at "Eton," shall be of any force and effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College elected before the date of an Order of Her Majesty in Council, confirming the Statutes made by us the Commissioners appointed under the said Act, which Statutes are dated the Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty.

And save and except so much of the said former Statutes as relate to the powers and functions of the Visitor thereof, which shall be and remain in force as heretofore.

From and after the approbation of this Statute by Her Majesty in Council, all the former Statutes of the College shall stand and be repealed, except and subject as aforesaid.

Given under our Common Seal this Twenty-third day of October, in the year of our Lord One thousand eight hundred and sixty.

L.S.

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d of October 1860, under the 19 & 20 Vict. c. 88, for the Repeal of the previously existing Statutes of QUEEN'S COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future regulation of Queen's College, in the University of Cambridge.

Repeal of previously existing Statutes.

FROM and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of Queen's College, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act "to make further provision for the good Government and "Extension of the University of Cambridge, of the Colleges "therein, and of the College of King Henry the Sixth at "Eton," shall be of any force and effect, save and except in so

so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present President and of the Fellows of the College elected before the date of an Order of Her Majesty in Council, bearing date the 30th day of June, in the year of our Lord One thousand eight hundred and sixty.

And save and except so much of the said former Statutes as relate to the powers and functions of the Visitor thereof, which shall be and remain in force as heretofore.

From and after the approbation of this Statute by Her Majesty in Council, all the former Statutes of the College shall stand and be repealed, except and subject as aforesaid.

Given under our Common Seal this Twenty-third day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d of October 1860, under the 19 & 20 Vict. c. 88, for the Repeal of the previously existing Statutes of CHRIST'S COLLEGE, and for the Repeal of Queen Elizabeth's License respectively in the said College, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision for "the good Government and Extension of the University of "Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statutes for the future regulation of Christ's College, in the University of Cambridge.

Repeal of previously existing Statutes.

From and after the approbation of this Statute by Her Majesty the Queen in Council, as well the Statutes which were first made and given to Christ's College, in the University of Cambridge, in the year of our Lord One thousand five hundred and six, by the Foundress thereof (viz., by the Lady Margaret, Countess of Richmond and Derby, mother of Henry the Seventh, King of England), as also all other such Statutes of the said College as existed and were in force before the passing of the Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to "make further provision for the good Government and Exten- "sion of the University of Cambridge, of the Colleges therein, "and of the College of King Henry the Sixth at Eton," shall stand and be repealed, and cease to be of any force and effect, save and except in so far as the said former Statutes or any of them relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College elected before the date of an Order of Her Majesty in Council, bearing date the tenth day of May, in the year of our Lord one thousand eight hundred and sixty. And save and except so much of the said former Statutes as relate to the powers and functions of the Visitor thereof, which shall be and remain in force as heretofore.

Repeal of Queen Elizabeth's License to the Five Senior Fellows of Christ's College, who are Preachers.

From and after the approbation of this Statute by Her Majesty the Queen in Council, the privilege which has been held to be conferred by the license of Queen Elizabeth upon the five Senior Fellows of Christ's College, in the University of Cambridge, who are Preachers, with regard to the tenure with their Fellowships of Ecclesiastical Preferment of greater annual value than the Statutes permit, shall cease and be repealed; saving, however, and without prejudice to the rights of any Fellow of the College, who may have been elected before the date of an Order of Her Majesty in Council, bearing date the tenth day of May, in the year of our Lord one thousand eight hundred and sixty. And, saving as aforesaid, the tenure with a Fellowship, as well of Ecclesiastical Preferment, as of any other property of what kind soever shall

shall be entirely regulated by the provisions of Cap. 28 of the new Statutes of the College, which were approved by Order of Her Majesty in Council on the tenth day of May, in the year of our Lord one thousand eight hundred and sixty.

Given under our Common Seal this Twenty-third day of October, in the year of our Lord One thousand eight hundred and sixty.

L.S.

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 23d of October 1860, under the 19 & 20 Vict. c. 88, for the Repeal of the previously existing Statutes of GONVILLE AND CAIUS COLLEGE, in the said University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College "of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future regulation of Gonville and Caius College, in the University of Cambridge.

Repeal of previously existing Statutes.

FROM and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of Gonville and Caius College, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision for the good Government "and Extension of the University of Cambridge, of the

"Colleges therein, and of the College of King Henry the "Sixth at Eton," shall be of any force and effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College, elected before the date of an Order of Her Majesty in Council, bearing date the 30th day of June, in the year of our Lord One thousand eight hundred and sixty.

And save and except so much of the said former Statutes as relate to the powers and functions of the Visitor thereof, which shall be and remain in force as heretofore.

From and after the approbation of this Statute by Her Majesty in Council, all the former Statutes of the College shall stand and be repealed, except and subject as aforesaid.

Given under our Common Seal this Twenty-third day of October, in the year of our Lord One thousand eight hundred and sixty.

L. S.

1065

CAMBRIDGE UNIVERSITY.

COPIES of Statutes framed by the Cambridge University Commissioners on the 3d and 28th of December 1860, under the 19 & 20 Vict. c. 88, in respect of Emmanuel, Magdalene, St. John's, Trinity, and King's Colleges, in the University of Cambridge, and of the College of King Henry the Sixth at Eton.

Privy Council Office, 18 April 1861. } ARTHUR HELPS.

COPIES of Two Statutes framed by the Cambridge University Commissioners on the 3d of December 1860, respecting the Commemoration of Benefactors at Emmanuel College, in the University of Cambridge; and the Consolidation of Small Exhibitions at the said College.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the two following Statutes respecting the Commemoration of Benefactors at Emmanuel College, in the University of Cambridge, and respecting the several Exhibitions at the said College enumerated in the same.

1. *Of the Commemoration of Benefactors.*

There shall be an annual Commemoration of the Founder and other Benefactors of the College, to be celebrated on the 24th of November in each year, or in case that day should be a Sunday, on the 22d of November. The Master and Fellows may from time to time regulate the form and manner of such commemoration.

2. *Consolidation of small Exhibitions.*

From the date of the confirmation of this Statute there shall be no further election to any of the Exhibitions at Emmanuel College enumerated in the Schedule hereto annexed.

All the emoluments derived by the College from the Foundations of the several Benefactors for the maintenance of the said Exhibitions shall be consolidated into one general fund, the proceeds of which shall be applied from time to time by the Master and Fellows of Emmanuel College, at their discretion, for the support and encouragement of poor and deserving students.

Schedule.

One Exhibition founded by the Reverend N. Aspinall.
Two Exhibitions founded by Mr. Hobbs.
One Exhibition founded by Mr. J. Wells.
Two Exhibitions founded by the Reverend W. Branthwaite.
Two Exhibitions founded by Lady G. Mildmay.
Two Exhibitions founded by Mrs. Anne Hunt.

Given under our Common Seal this Third day of December in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 3d of December 1860, with respect to the several SCHOLARSHIPS or EXHIBITIONS at MAGDALENE COLLEGE, in the University of Cambridge, limited by way of preference to any particular School or place of Education.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision "for the good Government and Extension of the University "of Cambridge, of the Colleges therein, and of the College "of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following Statute with respect to the several Scholarships or Exhibitions at Magdalene College, in the University of Cambridge, limited by way of preference to any particular school or place of education.

In the case of any vacancy of any Scholarship or Exhibition at Magdalene College limited by way of preference to candidates coming from any school or place of education, for which no candidate, coming from such school or place of education, of sufficient merit shall offer himself, it shall be competent for the Master and Fellows to throw the same open to general or extended competition, in such manner as they may think advisable.

Given under our Common Seal this Third day of December, in the year of our Lord One thousand eight hundred and sixty.

L.S.

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 3d of December 1860, for the Removal of Doubts which have arisen in respect of the STATUTES previously framed by the said Commissioners for ST. JOHN'S COLLEGE, in the University of Cambridge, "as "to the taking of Holy Orders," and "as to the Preserva- "tion of Rights of existing Fellows" of the said College.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled "An Act to make further Provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton:" Do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future government and regulation of the College of St. John the Evangelist, in the University of Cambridge:—

If the Master or any Fellow of the College entitled to exercise a power of election under the Statute relating to the "Preservation of Rights of existing Fellows," (being number XLVII. of the Statutes approved by an Order of Her Majesty in Council, bearing date the Twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty), shall at any time, before or after the confirmation of this present Statute by Her Majesty in Council, signify his election in the manner therein prescribed, then his rights in respect of emoluments, tenure of office, and other interests of a pecuniary nature, shall be henceforth governed by all the Statutes which shall have been duly made and approved in those respects under the provisions of the above-mentioned Act, in the same manner as if he had been elected subsequent to the date of the confirmation of the last of the said Statutes by Her Majesty in Council.

Given under our Common Seal this Third day of December, in the year of our Lord One thousand eight hundred and sixty.

L. S.

WHEREAS we, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further "Provision for the good Government and Extension of the "University of Cambridge, of the Colleges therein, and of the "College of King Henry the Sixth at Eton," have, in execution of the powers vested in us by the said Act, made a Statute for the College of Saint John the Evangelist, in the University of Cambridge, bearing date the Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty, the which is in the words following, that is to say:—

"AS TO TAKING HOLY ORDERS.

"Every Fellow of the College hereafter elected, who has taken the degree of Master of Arts, or who, having graduated in Law or Medicine, has attained the full standing of Master of Arts, shall be in Priests' Orders at the expiration of seven years complete from the time of taking such degree, or attaining such standing, or shall cease to be a Fellow at the expiration of three months after the completion of such term, except in the cases hereinafter mentioned; that is to say:—

"1st. Any Fellow who may be exempted from the obligation to take Holy Orders, in virtue of any of the Statutes marked XXIV. A., XXIV. B., XXIV. C., XXIV. D., and XXIV. E., respectively, made by the Commissioners appointed for the purposes of the Act 19 & 20 Vict. c. 88, and confirmed by an Order of Her Majesty in Council, bearing date the Tenth day of May, in the year of our Lord One thousand eight hundred and sixty, shall continue to retain such exemption, notwithstanding anything contained in this present Statute.

"2dly. Any Fellow may be elected under the provisions of Statute XXX. of the Statutes of the College made by the said Commissioners, and confirmed by an Order of Her Majesty in Council, bearing date the Twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty, shall be allowed to retain his Fellowship free from any obligation to take Holy Orders."

And whereas by a Statute also made by us, and bearing date the same Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty, it was enacted as follows:—

"From and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of the College of

Saint John the Evangelist, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, 'An Act to make further Provision for 'the good Government and Extension of the University of 'Cambridge, of the Colleges therein, and of the College of 'King Henry the Sixth at Eton,' shall be of any force and effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College elected before the date of an Order of Her Majesty in Council, bearing date the Twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty."

And whereas doubts have arisen whether the Fellows of the said College of Saint John the Evangelist who have been or may be elected after the date of the said Order of Her Majesty in Council, bearing date the Twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty, but before the approbation by Her Majesty in Council of the said Statute, bearing date the Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty, would be bound by the provisions, as to taking Holy Orders, of the Statute first hereinbefore recited: Now we, the said Commissioners, do hereby ordain and enact—

That any Fellow of Saint John's College elected after the date of the said Order of Her Majesty in Council, bearing date the Twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty, but before the approbation of the said Statute, bearing date the Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty, shall be subject to the provisions of the said Statute hereinbefore recited, "As to taking Holy Or- "ders," in the same manner as if he had been elected subsequent to the date of the approbation of the said Statute of the Sixteenth day of May by Her Majesty in Council.

Given under our Common Seal this Third day of December, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS, on the 3d of December 1860, for the Removal of Doubts which have arisen in respect of certain of the Statutes previously framed by the said Commissioners, for TRINITY COLLEGE, in the University of Cambridge, "as "to the taking of Holy Orders"; and as to the "Preserva- "tion of Rights of existing Fellows" of the said College.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for "the good Government and Extension of the University of "Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton:" Do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future government and regulation of the College of the Holy Trinity, in the University of Cambridge:—

If the Master or any Fellow of the College entitled to exercise a power of election under the Statute relating to the "Preservation of Rights of existing Fellows," being number XXXVII. of the Statutes approved by an Order of Her Majesty in Council, bearing date the Twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty, shall at any time, before or after the confirmation of this present Statute by Her Majesty in Council, signify his election in the manner therein prescribed, then his rights in respect of emoluments, tenure of office, and other interests of a pecuniary nature, shall be thenceforth governed by all the Statutes which shall have been duly made and approved in those respects under the provisions of the above-mentioned Act, in the same manner as if he had been elected subsequent to the date of the confirmation of the last of the said Statutes by Her Majesty in Council.

Given under our Common Seal, this Third day of December, in the year of our Lord One thousand eight hundred and sixty.

L. S.

Whereas we, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," have, in execution of the powers vested in us by the said Act, made a Statute for the College of the Holy Trinity, in the University of Cambridge, bearing date the Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty, the which is in the words following; that is to say,—

"As to taking Holy Orders.

"Every Fellow of the College hereafter elected who has taken the degree of Master of Arts, or who, having graduated in Law or Medicine, has attained the full standing of Master of Arts, shall be in Priests' Orders at the expiration of seven years complete from the time of taking such degree, or attaining such standing, or shall cease to be a Fellow at the expiration of three months after the completion of such term, except in the cases hereafter mentioned; that is to say,—

"1st. Any Fellow who may be exempted from the obligation to take Holy Orders, in virtue of any of the Statutes marked XVIII. A., XVIII. B., XVIII. C., XVIII. D., and XVIII. E. respectively, made by the Commissioners appointed for the purposes of the Act 19 & 20 Vict. c. 88, shall continue to retain such exemption, notwithstanding anything contained in this present Statute.

"2dly. Any Fellow who may be elected under the provisions of Statute XXII. of the Statutes of the College made by the said Commissioners, and confirmed by an Order of Her Majesty in Council, bearing date the Twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty, shall be allowed to retain his Fellowship free from any obligation to take Holy Orders."

And whereas by a Statute also made by us, and bearing date the same Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty, it was enacted as follows:—

"From and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of the College of the Holy Trinity, in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session

Session of Parliament holden in the Nineteenth and Twentieth years of the reign of Her Majesty Queen Victoria, intituled, 'An Act to make further provision for the good Government 'and Extension of the University of Cambridge, of the Col-'leges therein, and of the College of King Henry the Sixth at 'Eton,' shall be of any force and effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Master, and of the Fellows of the College elected before the date of an Order of Her Majesty in Council, bearing date the Twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty, and of the three present Regius Professors of Divinity, Hebrew, and Greek respectively, in the same College."

And whereas doubts have arisen whether the Fellows of the said College of the Holy Trinity, who have been or may be elected after the date of the said Order of Her Majesty in Council, bearing date the Twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty, but before the approbation by Her Majesty in Council of the said Statute, bearing date the Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty, would be bound by the provisions as to taking Holy Orders of the Statute first hereinbefore recited: Now we, the said Commissioners, do hereby ordain and enact,—

That any Fellow of the College of the Holy Trinity, elected after the date of the said Order of Her Majesty in Council, bearing date the Twenty-second day of February, in the year of our Lord One thousand eight hundred and sixty, but before the approbation of the said Statute bearing date the Sixteenth day of May, in the year of our Lord One thousand eight hundred and sixty, shall be subject to the provisions of the said Statute hereinbefore recited, "As to taking Holy Orders," in the same manner as if he had been elected subsequent to the date of the approbation of the said Statute of the Sixteenth day of May by Her Majesty in Council.

Given under our Common Seal, this Third day of December, in the year of our Lord One thousand eight hundred and sixty.

L. S.

COPIES of Two ADDITIONAL STATUTES framed by the CAMBRIDGE UNIVERSITY COMMISSIONERS on the 28th of December 1860, for the future Regulation of KING'S COLLEGE, in the University of Cambridge.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament, holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Pro-"vision for the good Government and Extension of the "University of Cambridge, of the Colleges therein, and of "the College of King Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future regulation of King's College, in the University of Cambridge.

Repeal of previous existing Statutes.

From and after the approbation of this Statute by Her Majesty in Council, none of the Statutes of King's College in the University of Cambridge, which existed and were in force before the passing of the Act passed in the Session of Parliament, holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act "to make further provision for the good Government and Ex-"tension of the University of Cambridge, of the Colleges "therein, and of the College of King Henry the Sixth at "Eton," shall be of any force and effect, save and except in so far as the said former Statutes relate to the emoluments, tenure of office, right of pre-option of livings, and other interests of a pecuniary nature of the present Provost, and of the Fellows of the College elected before the date of an Order of Her Majesty in Council, confirming the Statutes made by us the Commissioners appointed under the said Act, which Statutes are dated the Nineteenth day of April, in the year of our Lord One thousand eight hundred and sixty.

And save and except so much of the said former Statutes as relates to the powers and functions of the Visitor thereof, which shall be and remain in force as heretofore.

From

From and after the approbation of this Statute by Her Majesty in Council, all the former Statutes of the College shall stand and be repealed, except and subject as aforesaid.

Given under our Common Seal, this Twenty-eighth day of December, in the year of our Lord One thousand eight hundred and sixty.

L. S.

King's College.

We, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further Provision for the "good Government and Extension of the University of Cam- "bridge, of the Colleges therein, and of the College of King "Henry the Sixth at Eton," do hereby, in execution of the powers vested in us by the said Act, make the following additional Statute for the future government of King's College in the University of Cambridge, and for better regulating the mode in which the changes in the constitution of that College, prescribed by the Statutes already made by us, the said Commissioners, shall be carried into effect.

1. As soon as the new Statutes for King's College come into force it shall be lawful for the Provost and Fellows at once to declare the then existing Scholars, "Eton Scholars," in the sense of that term employed in the new Code of Statutes.

2. In case any vacancies shall occur in the number of Fellows and Scholars of King's College after the day on which the new Statutes shall come into force, and before the indentures for the current year are cancelled at Eton College, it shall be lawful for the Provost and Fellows of King's College to admit to Scholarships at that College such Scholars of Eton College as shall have a contingent title to admission at King's College, and to declare such Scholars, on their admission, "Eton Scholars," in the sense of the term employed in the new Code of Statutes.

3. Whereas the present number of Fellows of King's College is fifty-five, while the new Statutes contemplate the number being reduced to forty-six, it shall not be necessary for the Provost and Fellows to abstain from filling up all Fellowships which may become vacant, until the entire number be reduced below forty-six; but it shall be lawful for them to fill up such limited number of vacant Fellowships in each successive year as they may think fit, until the entire number of Fellows be reduced below forty-six.

4. Whereas it is contemplated in the new Statutes for King's College that the number of "Eton Scholars" at that College shall be twenty-four, it shall be lawful for the Provost and Fellows to complete that number gradually, provided that not fewer than three Eton Scholarships shall be offered for competition in each year until the statutable number of twenty-four be completed.

Given under our Common Seal, this Twenty-eighth day of December, in the year of our Lord One thousand eight hundred and sixty.

L.S.

COPY of a STATUTE framed by the CAMBRIDGE UNIVERSITY COMMISIONERS, on the 28th of December 1860, for the regulation of the COLLEGE of KING HENRY the SIXTH at ETON.

ETON COLLEGE.

WE, the Commissioners appointed for the purposes of an Act passed in the Session of Parliament holden in the nineteenth and twentieth years of the reign of Her Majesty Queen Victoria, intituled, "An Act to make further provision for "the good Government and Extension of the University of "Cambridge, of the Colleges therein, and of the College of "King Henry the Sixth at Eton," do hereby in execution of the powers vested in us by the said Act, make the following Statute for the regulation of the College of King Henry the Sixth at Eton.

Whereas

Whereas we, the said Commissioners, have made an additional Statute for the future Government of King's College in the University of Cambridge, and for better regulating the mode in which the changes in the constitution of that College, prescribed by the Statutes already made by us, the said Commissioners, shall be carried into effect, which Statute is in the words following; that is to say,—

1. As soon as the new Statutes for King's College come into force, it shall be lawful for the Provost and Fellows at once to declare the then existing Scholars, "Eton Scholars," in the sense of that term employed in the new Code of Statutes.

2. In case any vacancies shall occur in the number of Fellows and Scholars of King's College after the day on which the new Statutes shall come into force, and before the indentures for the current year are cancelled at Eton College, it shall be lawful for the Provost and Fellows of King's College to admit to Scholarships at that College such Scholars of Eton College as shall have a contingent title to admission at King's College, and to declare such Scholars, on their admission, "Eton Scholars," in the sense of the term employed in the new Code of Statutes.

3. Whereas the present number of Fellows of King's College is fifty-five, while the new Statutes contemplate the number being reduced to forty-six, it shall not be necessary for the Provost and Fellows to abstain from filling up all Fellowships which may become vacant until the entire number be reduced below forty-six; but it shall be lawful for them to fill up such limited number of vacant Fellowships in each successive year as they may think fit, until the entire number of Fellows be reduced below forty-six.

4. Whereas it is contemplated in the new Statutes for King's College, that the number of "Eton Scholars," at that College shall be twenty-four, it shall be lawful for the Provost and Fellows to complete that number gradually, provided that not fewer than three Eton Scholarships shall be offered for competition in each year, until the statutable number of twenty-four be completed.

Now we, the Commissioners aforesaid, by virtue of the powers vested in us by the aforesaid Act (19 & 20 Vict. c. 88), do ordain that the said Statute herein-above recited shall, so far as the College of King Henry the Sixth at Eton may be affected thereby, be deemed to be a Statute of such last-mentioned College, and shall have the same force and effect as

the other Statutes of the same College, subject, nevertheless, to the following provision; that is to say, that the said College of King Henry the Sixth at Eton shall not be in any manner bound or affected by the said recited Statute, if the same do not become and be a Statute of King's College in the University of Cambridge.

Given under our Common Seal this Twenty-eighth day of December, in the year of our Lord One thousand eight hundred and sixty.

L. S.

CAMBRIDGE UNIVERSITY.

COPIES of STATUTES framed by the CAMBR
UNIVERSITY COMMISSIONERS on the 3d
28th of December 1860, under the 19 &
Vict. c. 88, in respect of EMMANUEL, M
DALENE, ST. JOHN'S, TRINITY, and KI
COLLEGES, in the UNIVERSITY of CAMBRII
and of the COLLEGE of KING HENRY the SI
at ETON.

(Presented pursuant to Act of Parliament.)

Ordered, by The House of Commons, *to be Printed,*
19 *April* 1861.

176.

Under 1